

IPR DURAS

**Linking farmers to markets through valorisation of local resources:
the case for intellectual property rights of indigenous resources**

SCIENTIFIC REPORT

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1. INTRODUCTION

A. PROJECT RATIONALE AND GENERAL OBJECTIVES

The world-wide trend in food consumption patterns towards more diverse products with a strong cultural value is creating opportunities for rural producers to move away from low value agricultural production into niche markets. However, despite owning a rich diversity of traditional knowledge and indigenous resources (Cape indigenous flora; Mopani worms; Marula fruit etc.) and producing many agro-food products rooted in the use of these local resources (Honeybush tea; Rooibos tea; Karoo lamb; Boer goat; ostrich products), rural communities in the SADC region generally market low value products or raw materials. Considering that many community based products have a given quality, reputation or other characteristic essentially attributable to their geographical origin, labeling and protection through a geographical indication (GI) could apply to them and institutionalize the tacit reputation which consumers confer on some geographic or cultural attributes. Nevertheless, where differentiated products do exist, they are often the result of the initiative of medium or large-scale farmers and enterprises. There were therefore a need to explore the potential for improving and strengthening rural poor communities' linkages to the market through geographical indication labeling and collective action.

In this regard, special attention was paid, on the one hand, to the current lack of a proper public system for protecting GIs in Southern Africa, as compared to the situation in the European Union (EU) - the current legal framework only provides for the protection of GIs as collective trademarks – and on the other hand, to local dynamics based on specific agro-food products. The lack of a public system through which to valorize GIs was identified as excluding resource poor farmers (but also commercial larger scale farmers) from a potentially useful tool for improving their market access. The need for a public system of protection also emanates from the significance of the wild resources found in South Africa and Namibia, which are often the only source of income for resource poor communities and which stand to be lost through bio-piracy. It thus appeared important to assess the merits of developing a GI institutional framework for Southern Africa and to evaluate the needs for a sui generis legal system.

Two central questions were therefore addressed by the project: "How can local communities efficiently protect their resources and differentiate their production through GIs?" and "What is the nature and extent of the required institutional and legal framework to achieve this objective?" This project aimed to provide conceptual and procedural answers on the potential use of GIs in order to protect and utilize indigenous knowledge artefacts to the benefit of local communities.

B. PROJECT OVERVIEW

The general purpose of the project was both to carry out case studies, carefully selected out of a wide range of potential cases, in order to be able to assess the real potential for improving resource poor farmers' market access through GIs, and to design tools to take advantage of the potential for protecting local resources and knowledge in order to create dynamics for the valorization of specific local resources.

From its inception, the research program has been connected to the policy process with, in particular, the involvement of government representatives as core partners that allowed for stimulating the public debate on GIs in South Africa and in Namibia. Whereas the GI concept and the general idea of protecting indigenous resource was not totally foreign at government

and research level in South Africa, especially through an initiative of the Western Cape Department of Agriculture, it was quite new in Namibia; and there was a strong need to create awareness and build capacity in both countries on how to think about the importance of protecting indigenous resources and traditional knowledge. DURAS meetings and informal exchanges provided a forum for the transfer and sharing of information on the different dimensions of GI in a Southern African context. Furthermore, agricultural production and commercialization use to be characterized by limited collective action both at local and national level to improve competitiveness. Commercial farmers are accustomed to acting on an individual basis, and emerging and resource poor farmers are generally poorly involved in organizations. The project was thus intended to engage with actors at industry and community level to enhance the potential for protecting and promoting some origin-based products. A strong focus was put on capacity building and information sharing.

Given the novel aspect of GIs in Southern Africa –no GIs have been formally registered in Southern Africa so far -, the project was based on a gradual process of exploration of the relevance of the GI concept in South African and Namibia and its possible implementation. This was composed of different steps that consisted first of an exploratory phase to better comprehend the diversity of localized resources through an inventory of indigenous knowledge and resources claimed to be unique by communities. A two pages call for submission was widely disseminated to consult a large audience (NGOs, government departments, in farmer's magazines, producer organisations...) and invite people to submit potential case studies. The call was published in different newspapers and radio programs were broadcasted. Out of the submitted cases, a selection process based on ensuring the wider possible diversity in the exploration of GI potential led to the choice of four cases from South Africa (Rooibos Tea, Honeybush Tea, Karoo Lamb and Nguni hides) and two from Namibia (Kalahari Melon seed and Karakul pelts) (see Section 3 point A).

In a second phase, capacity building workshops were conducted for some of the selected cases: the Rooibos, Honeybush tea and Nguni hides communities (see Section 3 point B). These capacity building workshops constituted the first step towards conducting the case studies except for the Nguni Hides case where after the capacity building workshop, agreement arose in the industry that GI is probably not the more relevant option for this industry. On the other hand, strong interest from the Mohair industry to explore the potential for registering a GI manifested during the first year of the project, a decision was made to include the Camdeboo Mohair as a case study. The fact that it carries a regional name and the group implements a strong code of conduct provides string resemblance with the GI philosophy.

In place of the capacity building workshops, information meetings were conducted for the Karoo lamb, the Kalahari melon seed oil and the Karakul pelt industries to raise awareness on GI and to prepare for the case studies.

The following phase of the project consisted of developing the case studies (see Section 5). Based on initial workshops and meetings, different levels of engagement with the industries and communities were defined according to the interest actors expressed in exploring GI related processes. A decision was made collectively between the research team and the different case study role players on how to articulate the research process and the actors' own interest in exploring GI issues. Where strong interest was expressed, a 'GI committee' representing the industry was appointed, and supported by some of the research partners, to ensure the sharing of information between the research team and the industry role players and to explore the potential for implementing GI. The main function of these committees was to complete the description of the product and draft the code of conduct or specification. In the

other cases, a member of the research team took the lead to prepare the product characteristics and became the main resource person for the corresponding industry. This happened due to the fact that a current IP regime is already in existence in the industry or that the level of organisation and structure of the industry is still very low.

Insights from the case studies documentation process and exchanges with stakeholders provided insights to make our project ideas relevant to the reality of the field. This constituted a strong information and experience base that was discussed and assessed in different meetings during the course of the project. Discussion based on the case studies was used to feed the thinking in terms of more adapted institutional and in particular legal framework. The legal dimension was then documented all along the process to account for insights from case studies and for changes in the legal framework (see Section 4).

A prominent meeting in this regard was the workshop with eleven international experts that provided for a good representation of the different regions (Brazil, India, Europe) and international organisations (WTO, European Commission, WIPO, Swiss Intellectual Property Institute...) as well as for a balance between researchers and practitioners. Furthermore were also invited local stakeholders from the Department of Trade and industry, the National Agricultural Marketing Council, a conservation agency (Cape Nature) as well as journalists. In this meeting, the experts were asked to reflect on the interesting perspectives brought by the case study according to their experience, the potential of the case study to benefit from GI protection (identification of success factors or shortcomings), the potential of GIs as an appropriate tool for rural development in Southern Africa and for biodiversity conservation and the features of the institutional and/or legal framework for Southern Africa to capture the benefits of GI protection for the studied products and ensure small-scale farmers' beneficiation. This meeting was a key step in the confrontation between local situations and dynamics on the one hand and the national and international dimensions of the debate on the other hand.

2. SYNTHESIS OF MAIN ACHIEVEMENTS AND DISSEMINATION

A. MAIN ACHIEVEMENTS AND DIFFICULTIES

The following table gives an overview of the outcomes from the different main activities of the project as well as of the difficulties faced.

| Components | Activities | Main achievements | Difficulties faced | Unexpected results |
|--|--|--|--|---|
| (a) Characterization of case studies with GI potential and preparation for submission as GIs of at least one product | 1. Product characterization 2. Current institutional framework description of the product 3. Potential target market assessment 4. Round table and workshops 5. Definition of guidelines 6. Develop product specification for at least one product 7. Engagement with governmental agencies 8. Submission | Documentation of 6 case studies depicting a wide range of situations and giving a strong basis for assessing the potential for implementing GI in Southern Africa Raised interest on GIs among different industries Numerous newspaper articles surrounding GIs and related issues. Industry wide agreement on rooibos specification, which was defined by the industry under IPR project partners facilitation Use of the rooibos case as a pilot case in South Africa Better understanding for the factors underlying Karoo lamb reputation | Strong individualism and difficulties to trigger collective action Sometimes a lack of a representative body to speak on behalf of an industry. Difficulties related to assessing impacts given the emerging features of GIs in Southern Africa. The realities of South African history and divisions within the communities. | Spill over effects of the rooibos GI initiative in terms of lobbying the Department of Trade and Industry and the Department of Agriculture for adequate GI framework Synergies and strong articulation between the GI and the biodiversity initiative in the rooibos industry |
| (b) Participatory capacity building on intellectual property of indigenous resources | 1. Overview of educational and participatory tools 2. Workshop IP right issues with communities 3. Assessment and adaptation of tools | Capacity building manual and generation of capacity among different producer communities | Lack of trust among groups of stakeholders in the different industries reinforced by the sensitiveness and complexity of IPR issues | |
| (c) Legal and institutional framework assessment | 1. Description of the legal and institutional framework 2. Audit of existing laws 3. Assessment of the organizational framework 4. Recommendations | South African and Namibian legal framework reviewed and assessed. | Lack of human resources from Namibian government in IPR and especially GIs South African government position regarding GIs is ambivalent in international negotiations | Request from Department of Trade and Industry to comment on the draft of the Intellectual Property Laws Amendment Bill GI listed by the Namibian government on the agricultural agenda at the WTO negotiation in Hong Kong in 2005 |

B. DISSEMINATION LIST

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3. SELECTION PROCESS AND CAPACITY BUILDING WORKSHOPS

A. SELECTION PROCESS

As already mentioned, the first phase of the project was mainly exploratory in order to better comprehend the diversity of localized resources through an inventory of indigenous knowledge and resources claimed to be unique by communities. Information was then collected based on a two pages call for submission which was widely disseminated to consult a large audience (NGOs, government departments, in farmer's magazines, producer organisations...) and invite people to submit potential case studies. That information was then organized based on a set of criteria that was designed so as to inform on the relevance of the chosen cases and on the peculiarities of the cases with a view to ensure the wider possible diversity in the exploration of GI potential as further described below.

1. Presentation of the set of criteria

The following set of criteria has been designed both to account for the factors of success and for factors providing for the diversity of situations in which it is worth studying the potential for developing GIs. Factors of success were identified after an extensive overview of the literature, as a result of Cerkia Bramley's Master Thesis. They serve to ensure that the chosen case studies have a real potential for being recognised and protected as GIs and for the relevant farmers to benefit from it. For purposes of the project, additional criteria were also designed to account for the diversity of possible situations.

1.1 Specificity of products:

A first aspect to be considered is the ease with which a product can be defined and thereby differentiated from similar products. The importance of specificity in the success of a geographical indication derives from the need to precisely define a product in order to facilitate differentiation. It is important to establish the characteristics of the product that differentiate it from a similar product produced in another region (Sylvander & Lassaut, 1994). This is linked to the capacity to define the **typicity** of the product and its link to a *terroir*.

The concept of *terroir* encompasses the belief that specific territories can comprise certain characteristics, which are due to a particular geographical environment with its inherent natural and human components. Scheffer and Sylvander (1997) define *terroir* as “*a homogenous geographical entity founded on natural and human factors where particular natural conditions conjugate with an original and ancient know-how*”.

According to Barjolle *et al* (1998) a *terroir* consists of “(1) a natural site, (2) a set of knowledge and human practices and (3) deep rooted traditions and cultural customs”.

Typicity is thus an intrinsic component of the product, rooted in an historical and geographical context specific to the region of origin. In determining a product's typicity one takes into consideration both aspects of the natural environment from where the product originates as well as any local *savoir faire*.

The existence of a link between a product and a *terroir* as reflected by its typicity is at the core of any geographical indication, contributing to the product specificity.

More generally, the different aspects that can contribute to the product specificity are the **geography**, the **production area**, the **production practices**, the **production system** and **specific species**. These can all contribute to the uniqueness of the product.

1.2. Reputation

The importance of reputation is highlighted in the Art 22 of TRIPS and Council Regulation 2081/92: “...where a given quality, **reputation** or other characteristic of the good is essentially attributable to its geographical origin.”

Reputation is determined by a product’s historical link to the region, the product specificity and consumer perceptions. The symbiotic relationship between specificity and reputation is clear in that a product’s specificity leads to its reputation, which in turn allows the benefits associated with specificity to transpire. **Historical and cultural aspects are determining factors** in the building of product reputation and should be taken into account as part of the criteria on reputation.

Importantly, reputation can be determined from a local, national or international perspective.

1.3. Coordination (institutional arrangements):

The geographically intertwined nature of geographical indications has certain implications for the coordination of origin labelled supply chains. As the Dolphin report (2002) mentions, origin labelled products are very often characterized by a “collective dimension in the sense that they are linked not only with the skills of many producers and/or processors but also with locally created public goods and with the history, habits and culture of the local community”. The reputation in geographical indications derives from the behaviour of a number of actors and becomes an asset shared by a network of firms (Raynaud & Valceschini, 1998). The more widespread the commitment to traditional production practices among producers in the area of production, the greater the impact of this investment in preserving the identity of the product and therefore the greater the collective value of the investment (Belletti, 2000). This requires the creation of collaborative networks through which many actors jointly manage the common product in the same way a single firm might do (Barjolle & Sylvander, 2002).

Although producers retain their economic and legal independence in the production and marketing of the common good, they are linked in that their activities result in a particular origin labelled product whose main characteristics are determined in the code of production. This peculiar manifestation of independence/interdependence between producers of the common good, each pursuing its own objectives, emphasizes the importance that origin labelled products stem from a collective process.

The importance of co-ordination has been reiterated throughout the research on typical products (Boccaletti, 1992; Canali, 1997; Barjolle & Chappuis, 1999). In this regard Chappuis and Sans (2000) have identified co-ordination in the supply chain as a prerequisite for the success of typical products and for the competitiveness of the firms producing and marketing it. Factors indicated by research as contributing to the need for co-ordination in origin labelled supply chains include the characteristics of the product in that they are highly differentiated and enjoy strong value-added, the seasonal nature of a number of origin labelled products and the location of some producers in regions where production costs may be higher. The most compelling reason seems to be the need to arrive, at the end of the processing stage, at a product with specific characteristics.

To account for this criterion, several aspects have to be looked at:

- farmers' organisations
- representativeness of organisations
- other organisations within supply chain (chambers...)
- agreements with downstream actors
- agreements between commercial and emerging farmers
- existing trademark protection either individual or collective (ownership of this)
- (plant breeder rights protection)

1.4. Institutional support / driving organisation:

Products bearing a geographical name have several public good characteristics (as they are in essence public brands put at the disposal of private actors), which require the intervention and support of public and/or private institutions (Barjolle *et al.*, 1998). This support may take many forms such as regulations, financial assistance with the procedure, advisory boards as well as financial support for individuals or applicant groups. In countries where geographical indications are a new concept, the State may need to provide support and advice to producers applying for registration. The most important role played by the State in protecting geographical indications however, is its role in facilitating protection by means of legislation thereby providing the instruments of institutional guarantee.

Other actors may bring their support to protect geographical indications and thus have to be considered in the screening. These are donors and NGOs.

At the frontier between the coordination criterion and the institutional support one is to be considered the existence or the potential for creating producer and/or processor organizations referred to in the European context as interprofessional bodies. These bodies are considered to be coordination institutions that can reduce transaction costs and convey information to all parties involved thereby reducing uncertainty and preventing potential market failures. It is within these bodies that the product is defined and the production code agreed upon. An industry, which lacks such similar bodies, will be unable to display the cohesion needed to successfully market a common product.

1.5. Type of supply chain/ market attractiveness:

Attractiveness of the market as a factor contributing to the success of a geographical indication refers to the characteristics of the market in which the product is to be sold. To assess the attractiveness of the various markets, the following factors should be considered (Barjolle *et al.*, 2002): size and growth potential of the market, structure of the partners downstream in the supply chain, barriers to entry in the market, margins realized in the past, economic stability of the market, intensity of competition, image of the sector and the region.

In addition to considering market attractiveness in order to ensure that the chosen products have the necessary market potential to render a GI beneficial, ensuring diversity among case studies in the types of studied supply chains will be an important component in order to fully account for and understand the role of the market context and determinants for GIs development.

- niche markets
- export oriented products
- local production
- bulk commodity
- possible great commercial success

Hence, these different types of supply chains are likely to reflect very different behaviours and interests, especially at retail and consumer level, and involve different issues in terms of quality.

6. Type of producers:

Some diversity in terms of the **proportion of emerging farmers and commercial farmers** and in terms of **their relationships** will be looked at, as we expect it to influence the capacity for undertaking collective action. Nevertheless, it will be important to ensure that a significant proportion of emerging farmers is participating in the production of the chosen products in order to explore the relevance of GIs for supporting rural development.

7. Environmental impact:

It was decided that diversity in environmental issues should be included as a criterion because of its contribution in assessing the relevance of GIs in the Southern African context to link small scale farmers to markets in a sustainable way. It will furthermore, facilitate an exploration of the interactions between different objectives and actors, in negotiating the codes of practices and in specifying the characteristics of the product (link with organic production, biodiversity friendly labelling etc.), but also in supporting small scale farmers.

Different aspects of the environmental impacts and/ or management have to be considered:

- sustainability of practices
- impact on biodiversity
- erosion
- water protection
- animal welfare

8. Geographical distribution of the communities within the country

This criterion was added to the list to ensure the representativeness of the case studies at the national level and hence, their ability to cover the different geographical contexts occurring in each country. This will be key to investigate properly the potential and needs for developing GIs in Namibia and South Africa.

2. The selection meeting and the grid

The selection process was done during a selection meeting based on the presentation of the potential cases and the fulfilment of a grid to inform and document the selection criteria for each potential case (see the grid below). The selection of the cases was done using two types of criteria: the first factor of the grid (product specificity) was used as a criterion for exclusion; the others served basically to ensure the wider possible diversity in the exploration of GI potential. This led to the following selected cases.

| Case | Major reason for choice |
|---------------------|--------------------------------------|
| Karakul pelt | Complex knowledge and skills |
| Kalahari melon seed | Indigenous and traditional knowledge |
| Nguni hide | Cultural significance |
| Karoo lamb | Reputation |
| Rooibos | 'Emblematic', 'terroir' features |

In addition to these five cases, Dirk Troskie agreed to conduct the Honeybush tea as a Western Cape Department of Agriculture case.

| Case study | Product specificity ¹ | | Reputat° | Driving group | Supply chain organisation | Market | Small Scale farmers | IPR | Environmental issues | Observations | GI interest** |
|--|-----------------------------------|------------------------------|---------------------------------|----------------------|--|-------------------------------------|---------------------------|------------|---------------------------------|-------------------------------------|--|
| | Final product charact. | Resources and link to place* | | | | | | | | | |
| Kalahari Melon Seed | Centre of origin Community traded | Local know how | yes | CRIAA | Different women groups and organisations | Fair trade, expanding rapidly Local | yes | No | | | |
| Rooibos | | Different terroirs | Wide | SARC EMG | Dominant player in industry | National and export | 2 small scale communities | Trademarks | Biodiversity and sustainability | High growth of market and expansion | Name reservation marketing tool, rural development |
| Nabbas - Kalahari mushrooms (truffles) | 'Mystic plant' delicacy | | | IPPT and communities | | Local + germany | | No | | | |
| Honeybush | Very aromatic | Highly localised | SA Herbal tea Confusion Rooibos | SAHTA | SAHTA | National and export Limited size | Community involvement | Trademarks | Sustainable harvesting | High growth Research undergoing | Name reservation, biodiversity conservation |
| Hoodia | | | | Hoodia working group | Not organised | | Communal farms | Patent | | No product | |

¹ The discussion on this dimension was based on the understanding that GIs are not only built on product specific characteristics but also on the link to the territory, and on the technical aspects and practices embedded within culture (transcription of culture into ways of growing and processing crops or livestock).

Combination of specific resources and know-how in a particular environment is what make GIs not transferable. GIs rely on a shared skills system involving farmers, processors, traders and in some instances inputs suppliers, which contribute to quality.

| | | | | | | | | | | | |
|-------------------------------------|--|--|---|---|---|--------------------------------|----------|---|--|--|--|
| Waterblomm etjies | Unique Boland | Boland culture | | No represent ative org. | Direct sell, hawkers No coordination | Local Export | Not much | | | | Marketing tool, quality assurance, coordination |
| Klein Karoo Ostrich | Feather, leather, meat Knoppies on skin | No clear link that binds the product to the region either by way of the unique natural environme nt or local savoir faire | Identity of farmers in Little Karoo Klein Karoo cooperative associated with ostrich | Ostrich Business Chamber | Ostrich Business Chamber Klein Karoo Cooperative (Pty) Ltd | National Internatio nal | Limited | Blue ostrich trademar k: skin, meat Fast food with Karoo name | Succulent Karoo: Biodiversity hotspot | IP route: brand as a key label with a reputation: GI unnecessary competition | |
| Bonsmara Cattle Breed | Breed Stringent select. Process Land race | | | Bonsmar a Cattle Breeder associati on | ? | National, internatio nal | | Brand, logo, Patent | | Breed that is marketed | |
| Namaqua Afrikaner sheep Breed | Indigeno us breed Hardines s and fat tails | Genetic resource | | Dpmt of Ag demandi ng | ? | None | ? | Public registrati on | | Processing? | Biodiversity Trad. knowledge |
| Gellaper sheep | Non fat tail | | | Project | | | | | | New breed, nuclear flock being established | |
| Nguni and Damara Hides | Skin Hide pattern Adapted to envt | Complex cultural association | African fashion | Dpmt of Ag demandi ng | ? | Low but high price | ? | Studbook registerin g | | No specific processing | Name reservation |

| | | | | | | | | | | | |
|-------------------------|--|---|---|--------------------------|------------------------------|--|---------------------------------|--------------------|-----------------------------------|-------------------------|--|
| Karakul and pelts | Century of use Flat curl Sun dried | Harshness of envt Farming practices uniform | Black diamond, Black rose, Desert rose | | Karakul breeder society | Auction Export | Focus of government | Swakhar a brand | | | |
| Kalahari Red Goat Breed | Breed Red colour Land race | | | Breed developer and club | | Local National | | Breed registration | | Prod. across country | |
| Karoo Lamb | Taste, flavour | Karoo shrubs: specific flavour | Specific taste perception 'Karoo lamb' country | No representative org° | Just Lamb-Woolworths +?? | National Important demand under this image | Northern Western Cape: coloured | Trademark? | Karoo very sensitive to overstock | Name has a market value | Quality assurance and name reservation, marketing tool |
| Umleqwa chicken | Strong rural indigenous chicken Xhosa meaning | Cultural and traditional ceremonies Eastern Cape | | No representative org° | Iqala Coop and Iqala product | Locally | | No | | | |

B. CAPACITY BUILDING WORKSHOPS

1. Rooibos, Honeybush tea and Nguni hides capacity building workshops

As mentioned in the introduction, capacity building workshops were conducted for some of the selected cases: the Rooibos, Honeybush tea and Nguni hides communities. Participants to the workshops for the different cases were not homogenous in that, as far as possible, all stakeholders involved in the supply chain of the chosen product were represented (producers, processors, traders, persons from support institutions (government, NGOs...)). Emphasis was placed on the representativeness of the participants. However, it was agreed upon that in cases such as Rooibos where the different stakeholders had a very different level of education and understanding of the issues at hand, the targeted group would be restricted to small-scale farmers. The methodology for conducting this activity departed from the handbook on "Issues and Options for Traditional Knowledge Holders in Protecting their Intellectual Property and Maintaining Biological Diversity" developed by the American Association for the Advancement of Science. This was adapted to the Southern African context and resulted in a facilitator guidebook called "Rights, Resources, Markets and Development – A South African / Namibian Farmer's Guide to Using Intellectual Property" that was disseminated during the capacity building workshops (see annexure 1).

The capacity building workshops sequences were the following. The capacity building workshop commenced with introductory activities followed by an exercise in which participants realize what they already know about intellectual property rights. For this exercise, posters of common examples of IP were placed around the room (e.g. Coca-Cola, Nike, South African wine, the cover of the book 'Cry the Beloved Country' and the South African vacuum cleaner Kreepy Krauly). Small groups responded to a series of questions aimed at exploring IP protections such as patents, trademarks, trade secrets, registered designs, geographical indications and copyright.

Following this exercise, participants started to explore their own resource and the knowledge associated to its production. In small groups, the participants examined various dimensions of the product and developed a final group consensus on 'what the product is'. Next, participants developed a timeline for the production process. The groups were determined by expertise and experience. One group also developed a geographical map detailing the area in which the resource is produced and the geographical features which make this terrain distinct.

Following the timeline and geographical descriptions, stakeholders were identified and each defined their values and goals associated with the resource. Using the IP tool developed for this series of capacity building works, the values and goals of the community were cross-reference with available IP options in Southern Africa. The group then engaged in a discussion of how the extant IP options could be utilized to promote their values and goals in regards to their knowledge and resource.

Summaries of the information produced and discussed during the workshops are provided in annexure 2.

2. Kalahari Melon Seed Oil Industry Stakeholders' Meeting & Consultation on Geographical Indication

In the case of the Kalahari Melon Seed Oil, the National Botanical Research Institute and CRIAA SA-DC organised a stakeholders' workshop as part of the Indigenous Plant Task Team (IPPT) KMS oil development project and Project DURAS. This workshop was attended by 30 participants representing a cross-section of KMS producers, KMS oil processors, NGO

service providers, Namibia National Farmers' Union, IPTT Eco-Regional Satellite Centres, Ministry of Agriculture, Water & Forestry agricultural extension services (DEES) and other relevant directorates and ministries (Directorate of Forestry, Ministry of Trade & Industry, Ministry of Environment & Tourism), from the North Central Regions (i.e. Omusati, Oshana, Ohangwena, Oshikoto) (26), as well as from Kavango (1) and Caprivi (2) Regions.

The workshop had three objectives, around which presentations and discussions were organised:

1. To facilitate the meeting of stakeholders to examine and better understand the emerging KMS oil industry in Namibia,
2. To enhance the understanding among the stakeholders of Geographical Indication (GI) as a potential marketing tool,
3. To explore the organisational arrangements for the industry, with the view to the possible establishment of an industry forum.

Participants were briefed about and discussed the emerging KMS oil industry and value-chain in Namibian and the SADC Region, and the reputation and quality of the product on which the niche marketing is based. The workshop agreed that KMS represented an interesting opportunity for small-holder farmers to diversify “cash crop” production and marketing (without compromising households' food security). Elements of an action plan to promote and scale-up the supply of KMS, while up-keeping the quality and reputation of the product, was debated and outlined. Information dissemination was seen as pivotal to the expansion of supply. Stakeholders committed themselves to start implementing the actions this year with further facilitation support, despite the uncertainties of this year's agricultural harvest.

Stakeholders were briefed about GI as an IPR option for enhancing market access and protection. GI gives a product a unique identity in high-value niche markets based on reputation for quality linked to a specific geographical area of production, historical know-how of producers, and a traceable and environmentally friendly fair-trade value chain. Therefore, GI can be used as a tool to protect the product against unfair competition and inferior imitation in international markets. However, the participants were also informed about the conditions and requirements for registering and managing a GI in the Namibian legal context. Stakeholders grasped the difficulties and time needed to progress on the GI option but agreed that it was worthwhile pursuing with the support of Government. In particular, stakeholders agreed that the formation of a KMS industry forum with a common purpose and the development of a “Code of Practice” to guide the industry towards the required quality and reputation were desirable.

Finally, the roles, form of organisation and composition of a representative KMS industry body were constructively debated but not entirely concluded. The participants agreed that the industry body should comprise representatives from producers and processors, as well as other public and private stakeholders. However, the workshop resolved to leave time for stakeholders to reflect and consult on the discussions and to take this further at a next meeting/workshop on the issue.

4. SYNOPSIS OF THE LEGAL FRAMEWORK PROTECTING GEOGRAPHICAL INDICATIONS IN SOUTHERN AFRICA

1. Introduction

The signing of the TRIPS agreement placed geographical indications in the international arena for the first time. In contrast to Southern European countries, South Africa does not have a long history of geographical indication protection. This section traces the South African legislative response to the obligations created under the TRIPS agreement, providing an exposition of the legislative framework within which geographical indications are protected in the South African context. It proceeds by way of a two tiered approach, first addressing protection at international level followed by an analysis of protection at national level. It documents the steps taken towards TRIPS compliancy and illustrates the practical implications of the current legal framework by analysing the legal strategies available to the Rooibos industry. It concludes with projections on the future of geographical indication protection in South Africa. The legal synopsis provided in this section forms a necessary backdrop to the further analysis, as it provides the framework within which geographical indications are facilitated.

Due to historical events, legislative developments in Namibia are to a large extent a duplication of South African laws. The discussion is thus limited to an exposition of the South African situation. The only notable exception being the South African proposed IP Amendment Bill, as discussed in the final section.

2. Protection at international level

International protection for geographical indications consists in principle of four multilateral agreements², each with a varying member base. These international agreements do not have a uniform approach to geographical indication protection as some protect against confusing or misleading use and others have established a system of proprietary rights. Of these agreements, South Africa holds membership to the Paris Convention and the TRIPS agreement, and is thus subject and entitled to the rights and obligations provided there under.

2.1 Paris Convention for the Protection of Industrial Property of 1883

The beginning of international protection of geographical indications dates back to the conclusion of the Paris Convention for the Protection of Industrial Property in 1883 (Paris Convention), which included protection for “indications of source” and “appellations of origin” (Conrad, 1996). However, protection for geographical indications under the Convention is very limited.

The Convention originally provided a qualified prohibition on false indications of origin only in cases where the false indication of origin was joined with a fictitious trade name or was

² Paris Convention for the Protection of Industrial Property of 1883, Madrid Agreement for the Repression of False or Deceptive Indications of Source on Goods of 1891, The Lisbon Agreement for the Protection of Appellations of Origin and their International Registration of 1958 and the TRIPS Agreement of 1994.

used with fraudulent intent. This requirement of fraudulent intent was attacked as being too narrow and at the 1958 Lisbon Revision Conference it was proposed that section 10 prohibit importation of *“any product which bears directly or indirectly a false or misleading indication of origin...”* The proposal was rejected due to an objection by South Africa that the term “misleading” was vague and uncertain as it would be open to interpretation by national courts (Bendekgey & Mead, 1992). However, the prohibition was expanded to the present provisions of section 10 which requires the seizure or prohibition of importation of goods *“in cases of direct or indirect use of a false indication of the source of the goods or the identity of the producer, manufacturer or merchant.”* Fraudulent intent is thus not presently required in terms of section 10. Also, at the 1958 conference, a new section 10 *bis* was proposed which included a prohibition against *“[I]ndications or allegations, the use of which in the course of trade is liable to mislead the public as to the nature, the origin, the manufacturing process, the characteristics, the suitability for their purpose or the quantity of the goods.”*

The United States vetoed the word “origin” and it was accordingly struck out. As presently worded, the Paris Convention thus requires each signatory nation to prohibit the importation of goods which bear a false indication of source. The present prohibition in section 10 *bis* of *“liable to mislead”* indications does not apply to misleading geographical indications. As such, the Convention does not provide protection in cases where the indication is used in translated form or accompanied by terms such as “kind”, “type”, or when it is deceptive, *i.e.* likely to mislead the consumer (OECD, 2000). The Paris Convention thus only prohibits the importation of goods containing false geographical indications but is not applicable to indications that are merely misleading (Conrad, 1996). Consequently, the importation of goods marked with a geographic indication that might be liable to mislead without rising to the level of being false, need not be protected by the Paris Convention (Benson, 1978). The decision on whether a representation is false is left to the Member country (OECD, 2000). Sanctions provided for include seizure upon importation, prohibition of importation or seizure within the country (section 9). This seizure is executed at the request of the public prosecutor, or any other competent authority or interested party (WIPO, 2002). Originally signed by eleven countries, the Convention now has 169 Members.

The Agreement does not afford significant protection to geographical indications. The Uruguay Round of the General Agreement on Tariffs and Trade (GATT) provided an opportunity to include geographical indications in an international agreement that would guarantee protection to all WTO Member countries. The following section will discuss the most important changes TRIPS brought about in the field of international protection for geographical indications. The purpose of this section is not to provide a definitive guide to the TRIPS agreement but rather to provide an outline of the extent of South Africa, as a founding Member of the WTO’s, international obligations with respect to geographical indications.

2.2 Trade Related Aspects of Intellectual Property Rights (“TRIPS”) Agreement of 1994

Part two (section 3) of the TRIPS agreement deals with the provisions relating to geographical indications. Geographical indications are defined as:

“ indications that identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristics of the good is essentially attributable to its geographical origin.”

By defining geographical indications, the TRIPS agreement obliges Member countries to respect and protect names falling within its ambit at national level according to the requirements set out in sections 22, 23 and 24 (OECD, 2000). Table 2.2 provides a layout of these provisions followed by a short discussion on each.

Table 1: An outline of the TRIPS provisions relating to geographical indications

| Field | Section 22 | Section 23 | Section 24 |
|------------------------------|--|--|---|
| Definition of subject matter | Section 22.1: defines the concept “geographical indication” | - | - |
| Basic Protection | Section 22.2-22.4: sets out the general standard of protection that applies to all products. | - | - |
| Additional Protection | - | Section 23: Sets out the additional protection available to geographical indications of wine and spirits products. | - |
| Exceptions | - | - | Section 24.3-24.9: Provides for exceptions to obligations. |
| Further negotiations | - | - | Section 24.1-24.2: Outlines provisions for future negotiations. |

Source: Adapted from Rangnekar (2003).

Section 22

After defining geographical indications, section 22 continues to state that:

“Members shall provide the legal means for interested parties to prevent (a) [...] the use of any means [...] which misleads the public as to the geographical origin of the good [...] or (b) any use which constitutes an act of unfair competition [...].”

Section 22 pertains to the general level of protection afforded all agricultural products and goods with section 22(2)(a) aimed at consumer protection and section 22(2)(b) aimed at protecting producers. Two requirements must be met in order to constitute a violation (Conrad, 1996). Firstly, there needs to be a geographically descriptive indication on a good and secondly, this representation should be false or misleading. This section thus permits use of a geographical indication as long as the true origin of the product is indicated or if used in conjunction with words such as “type” and “like.” The only requirement is that such use must not be “misleading” and should not constitute an “act of unfair competition” (Conrad, 1996).

Under this section, whether a name is misleading or not, is judged according to the perception of the general public in the country where protection is sought (Conrad, 1996). This means that if the public in the country where protection is sought regards a geographical indication as generic (i.e. indicative of a product not a place) there can be no question of misconception. Use of such indication would thus not be considered misleading under section 22 and would consequently not be prohibited. As long as public perception of a name is determinative for protection, foreign products are likely to be protected to a lesser degree than domestic products. In this respect, protection follows the system introduced by the Madrid Agreement.

Section 22(2) is supplemented by section 22(3) and 22(4). Section 22(3) makes provision for the refusal or invalidation of trademarks which contain or consist of a geographical indication if the use of the geographical indication in the trademark misleads the public as to the true place of origin of the product. Section 22(4) stipulates that the protection under Section 22(1) to 22(3) must also be made available in respect of the use of deceptive geographical indications i.e. geographical indications that are literally true, although they falsely represent to the public that the goods on which they are used originate in a different territory (WIPO, 2002).

Section 23

Section 23 provides additional protection for geographical indications of wine and spirits in cases where they are used to identify wine and spirits not originating in the place indicated by the geographical indication. This hierarchical nature of protection is the most distinctive feature of the TRIPS provisions relating to geographical indications.

Section 23 stipulates that:

“Each Member shall provide the legal means for interested parties to prevent use of a geographical indication identifying wines for wines not originating in the place indicated by the geographical indication in question [...] even where the true origin of the goods is indicated or the geographical indication is used in translation or accompanied by expressions such as ‘kind’, ‘type’, ‘style’, ‘imitation’ or the like.”

The protection afforded under section 23 is thus independent from any requirement of deception or unfair competition and more comprehensive than under section 22, as use of a geographical indication for wine or spirits is prohibited regardless of whether the true origin is indicated or whether it is used in conjunction with words such as “kind” and “type” (Rangnekar, 2003). It seems that this section’s *raison d’être* lies in the prevention of the degeneration of geographical indications into generic terms. Although section 23 cannot claim back terms that have already become generic, it seems to implement a fairly effective method for preventing further geographical indications from becoming generic terms (Conrad, 1996).

In addition, section 23(2) provides for the refusal or invalidation of trademarks that contain or consist of geographical indications for wine and spirits on wine and spirits products not originating from the indicated origin (WIPO, 2002). Other than under section 22, this protection is available regardless of whether the public is misled. Both section 22 and 23 should be read together with the exceptions provided for in section 24.

Section 24

Section 24 contains a number of exceptions to the obligations under section 22 and 23 which can be broadly divided into three categories, namely continued and similar use of geographical indications for wine and spirits, prior good faith trademark rights and generic designations (WIPO, 2002). The provisions of Section 24 were largely the result of a failure to reach agreement on the means by which and the level of protection of geographical indications. As a result, a built-in-agenda for future negotiations were agreed upon. The first provision for further negotiations can be found under section 23(4) in terms of which Members have to agree to engage in negotiations to establish an international register for notification and registration for geographical indications for wines and spirits (Rangnekar, 2003). Importantly, the obligation created is for negotiations and not to establish a system of notification and registration. In this regard, the European Union has tabled a proposal based on a register for geographical indications administered by the WTO Secretariat. The United States responded to the European Union's proposal with a proposal founded on the law of trademarks, the United States' system of protection. These divergent proposals have led to a debate at international law on whether geographical indications should be protected under a *sui generis* system or whether they are sufficiently protected under trade mark laws. The second provision related to future negotiations is section 24(1) which obliges Members to enter into negotiations aimed at increasing the protection of geographical indications under section 23.

In conclusion, TRIPS's contribution to the international protection of geographical indications can be summarized as follows (adapted from Conrad, 1996):

- The provisions relating to enforcement promise that protection will be more effective than under any of the previous agreements;
- Although border measures are familiar from the Paris Convention, Madrid Agreement and Lisbon Agreement, the inclusion of substantive measures and the opportunity for each Member to police other Member's national laws to the extent provided by TRIPS is completely new;
- The number of Member States is far greater than that of any previous agreement on the protection of geographical indications.

2.3 EU Regulation No. 510/2006

The European Union adopted EU Regulation No. 2081/92 in 1992 to protect geographical indications and designations of origin for agricultural products and foodstuffs. The Regulation effectively created a *sui generis* system of protection for geographical indications. Of importance in the South African context, the Regulation provided that geographical indications for products originating in a territory outside the European Union may only be registered, and thus protected, if the government in whose territory the geographical indication is located adopts a system for geographical indication protection that is equivalent to the European Union's system and provides reciprocal protection to geographical indications from the EU. The Regulation required that the foreign geographical indication's government accept an application for protection under the Regulation, examine it for consistency with the EU's regulations and then forward the application to the EU, either arguing for or against its acceptance. The Regulation furthermore, required the foreign

geographical indication's government to provide and monitor the necessary inspection structures used to ensure the product meets the European regulatory standards.

As a result of the Regulation, foreign geographical indications could only be registered in the European Union, if the government in whose territory the geographical indication is located adopted an equivalent system of protection for geographical indications. This meant that foreign geographical indications whose governments do not provide a system of equivalent protection were worse off than European geographical indications whose governments, in terms of EU Regulations, were forced to implement such a system. Based on the equivalence and reciprocity provisions of EC Regulation 2081/92, the United States claimed that the Regulation resulted in foreign geographical indication products not having the same access to the protection and benefits of EC Regulation 2081/92, and that the Regulation therefore contravened the National Treatment principle under International Law.

The WTO Panel held that the conditions for registration under EC Regulation 2081/92 constituted "less favourable treatment" of foreign geographical indication products in that it discriminates against foreign products and is therefore, in violation of the National Treatment principle. It noted that the European Union never proved that cooperation by governments is necessary to ensure that the geographical indication meets with the requirements nor, could the EU explain why the applicant, who is most knowledgeable about the particular geographical indication, could not provide the evidence required to meet European Union standards. The Panel furthermore found that the requirement for government monitored inspection structures discriminated against foreign nationals, as there is no obligation on foreign governments to establish, approve and monitor inspection structures for geographical indications.

In view of these findings, the Panel recommended that the EU amend EC Regulation 2081/92 to bring it inline with the EU's obligations under GATT and TRIPS. It specifically recommended that the EU amend its provisions relating to the registration of foreign geographical indications.

In response to the WTO Panel Ruling, the Agricultural Council of the European Community adopted EC Regulation 510/2006 on the Protection of Geographical Indications and Designations of Origin for Agricultural Products and Foodstuffs. The new regulation replaced EC Regulation 2081/92 and came into operation on 31 March 2006.

In terms of the new regulation, the protection available for EU geographical indications is extended to foreign geographical indications, irrespective of whether the foreign government affords an equivalent and reciprocal level of protection to EU geographical indications. Foreign geographical indication producers may now furthermore apply directly to the Commission, rather than having to go via its own national government. The provision requiring public certification bodies has been amended to allow for private certification bodies, provided they are accredited by 1 May 2010 in accordance with the EU's requirements for product certification systems. The proviso to qualifying for this protection is, however, that the foreign geographical indication still first needs to be protected domestically. South African geographical indications would thus, in order to be recognised as a geographical indication under EU Regulation 510/2006, first need to be protected under South African national laws. Importantly, however, as an equivalent and reciprocal level of protection is no longer required it may now be sufficient if the foreign geographical indication

is protected domestically under trade mark law and not necessarily under an equivalent geographical indication registration system.

3. Protection at National level

Despite growing importance at international level, the term geographical indication *per se* has not yet been introduced into South African legislation and protection is provided only by means of piecemeal laws of general application, under both common and statutory law.

3.1 Common law measures for protecting geographical indications in South Africa

Unlawful competition

The delict unlawful competition in South African law is derived from the provisions of the *lex Aquilia*. In seeking protection for a geographical indication under the action unlawful competition, the plaintiff will have to establish that there was an unlawful act and that such act was attributable to the fault of the wrongdoer (Van Heerden & Neethling, 1995). Such conduct must result in or constitute a false representation which causes, or which is likely to cause confusion or deception of a substantial number of consumers. In addition, this false representation must result in financial loss to the plaintiff. A serious shortcoming of this action is, however, that in order for someone to have *locus standi in iudicio* in an action for unlawful competition he/she has to trade or have business activity in South Africa since someone who does not is not considered a competitor. This severely limits the scope of the protection.

Passing off

The action of passing off in the South African law can be defined as (*Capital Estate and General Agencies (Pty) Ltd and Other v Holiday Inns Inc and Others*, 1977):

“The wrong known as passing off consists in a representation by one person that his business (or merchandise, as the case may be) is that of another, or that it is associated with that of another and in order to determine whether a representation amounts to a passing off, one enquires whether there is a reasonable likelihood that members of the public may be confused into believing that the business of one is, or is connected with, that of another.”

The right infringed by unlawful competition is the right to attract custom which can involve the right to an existing goodwill (Webster and Page, 1986). The wrong of passing off is a species of unlawful competition which specifically involves infringement of another's rights in an existing goodwill (*Draper v Trist & Tribestos Brake Lining Ltd*, 1939). Passing off thus protects a right in the reputation or goodwill of a name, mark or symbol. Goodwill as the subject of a proprietary right is incapable of subsisting by itself. It has no independent existence apart from the business to which it is attached (Webster and Page, 1986). This raises the issue that protection is only afforded under an action for passing off whilst business is conducted. In the case of *Kean v McGivan* (1982) it was said of passing off that:

“The property which is said to be injured in that situation is not the name or description of the goods but the right to the goodwill of the business which results from the particular commercial activity. Therefore the courts do not in the general

interfere to protect a non trader. I hasten to add that of course the word “trade” is widely interpreted to include persons engaged in a professional, artistic or literary occupation.”

It is thus clear that passing off provides no recourse to persons not engaged in a business. In addition, it is necessary in order to establish the existence of goodwill, to show that it is associated in the minds of the public with the business in question (Webster and Page, 1986). This reputation must extend to a substantial number of members of the public (*John Craig (Pty) Ltd v Dupa Clothing Industries (Pty) Ltd*, 1977). The extent of the reputation is limited geographically to the territory in which it is known as indicative of the goods, services or business in question (*Greaterman’s stores Ltd v Marks & Spencer (SR) Ltd*, 1963).

3.2 Protection under statutory law

There are no statutory provisions which expressly protect the unauthorized use or registration of geographical indications.

Trade Practices Act of 1976

The Trade Practices Act stipulates that (Section 9.b):

“[N]o person shall in connection with the sale of goods, directly or indirectly make any statement or communication or give any misleading description or indication in material respects in respect of the nature, properties, advantages or uses of such goods...”

The purpose of the Act was to protect members of the public from being misled. In addition, the Act serves to protect traders or producers of goods from actions of competitors who might mislead consumers into rather purchasing their goods. This section thus gives *locus standi* to traders and producers of goods against an offending competitor. In the case of *Long John International Ltd* (1990) the Court applied Section 9(b) of the Trade Practices Act to a case where the defendant was producing, distributing and selling “Ben Nevis Scotch Whisky Liqueur”. The applicant was seeking an interdict on the ground that the respondent was falsely representing to the public that “Ben Nevis” was a Scotch whisky. It was argued that such a misrepresentation arose out of all the surrounding circumstances which bore upon the interpretation of the label and get-up. It was held that as a result of the nature and get-up of the product, the product had been misrepresented as a Scotch whisky as a result of which a substantial number of members of the public could be confused into thinking it was a Scotch whisky. The respondents were consequently found guilty of contravening section 9(b) of the Trade Practices Act. This Act therefore provides some form of protection to geographical indications in that no person is allowed to make false representations as to the properties or nature of a good. As a result the legitimate users of a geographical indication could institute action under this Act if for example someone represents his product as having characteristics similar to a well known geographical indication.

Liquor Products Act 60 of 1989

This Act defines liquor products (which includes wine and spirits) and sets out the requirements for each liquor product. It continues to state that any person is prohibited from (section 12(1):

“[U]sing any name, word, expression, reference, particulars or indications in any manner, either by itself or in conjunction with any other verbal, written, printed, illustrated or visual material, in connection with the sale of a liquor product, in a manner which conveys or creates, or is likely to create, a false or misleading impression as to the nature, substance, quality, composition or other properties, or the class, cultivar, origin, age, identity, or manner or place of production of that liquor product.”

Created under the Liquor Products Act is the Wine of Origin Scheme. This scheme is administered by the Wine and Spirits Board and defines and demarcates areas of production (regions, districts, wards and estates). It further specifies permissible indications which may or may not appear on labeling. Since it has final approval of all wine labels, it can in this manner prohibit any reference to geographical indications which appear on such labels and which are either not accurate or which have not been approved by the Wine and Spirits Board as formed under this Act or which do not comply with TRIPS.

Merchandise Marks Act 17 of 1941

The Merchandise Marks Act prohibits the application of false trade descriptions to goods and the sale of goods bearing false trade descriptions. It provides that any person who applies any false trade description to goods shall be guilty of an offence (Section 6(1)). It also stipulates that a person who sells any goods bearing a false trade description shall be guilty of an offence (Section 7). “Trade description” and “false trade description” are defined as follow (section 1):

“Trade description means any description, statement or other indication, direct or indirect, as to the number, quality, measure, gauge or weight of any goods, or as to the name of the manufacturer or producer or as to the place or country in which any goods were made or produced, or as to the mode of manufacturing or producing any goods or as to the material of which any goods consists or as to any goods being the subject of an existing patent, privilege or copyright and includes any figure, word or mark which, according the custom of the trade, is commonly taken to be an indication of any of the aforementioned matters.”

“False trade description means any trade description, whether or not it consists of or includes a trade mark or part of a trademark which is false in a material respect as regards the goods to which it is applied and includes every alteration of a trade description, whether by way of addition, effacement or otherwise, if that alteration makes the description false in a material respect.”

Trade descriptions therefore include indications as to the place or country in which goods were made or produced and could thus provide possible recourse for geographical indication infringements.

Agricultural Products Standards Act 119 of 1990

Section 6A of this Act provides that the Minister of Agriculture may, inter alia by taking into account South Africa’s international obligations, by notice in the Government Gazette prohibit the use of specified geographical or other names or terms in connection with the sale

or export of a specified product. Such prohibition applies even where the geographical name is used with an indication of the true origin of the product, or is used in translation, or is used together with words such as “kind”, “type”, “style”, “imitation” or similar words. This provision which accords with section 23.1 of TRIPS applies to products which include any commodities of vegetable or animal origin, or that are produced from a substance of vegetable or animal origin. Should this protection be invoked by the Minister, it would thus provide for the higher level of protection as envisaged under section 23 of TRIPS.

Trade Marks Act 194 of 1993

The general condition for registrability of a trade mark under the Trade Marks Act is that it should be capable of distinguishing (either inherently or through use) the goods or services in respect of which registration is sought from the goods or services of another person. As such, generic or descriptive terms are incapable of registration in the absence of proof that they have acquired distinctiveness through use (in which case it will no longer be use of the word in its geographical context). The important issue is thus whether the inclusion of the geographical term in a trademark connotes geographical origin in the mind of the consumer, in which case it has to be disclaimed.

Should a geographical indication be irregularly registered as a trade mark, it will be possible for aggrieved parties to object to such registration and institute expungement proceedings on the grounds provided for under section 10. This section of the Act deals with unregistrable marks and specifically states that “[a] sign or an indication which may serve, in trade, to designate the kind, quality, quantity, intended purpose, value and geographical origin of a product” shall not be capable of registration. Furthermore, sections 10(12) and section 10(13) provide respectively that a mark which is “inherently deceptive” and “[...] would be likely to cause deception or confusion” shall be unregistrable. This recourse is likely to prove useful in the South African context where various individual trade marks incorporating geographical indications have been applied for or registered without disclaimers.

Despite the general prohibition against registration of geographical indications as individual trade marks, the Act provides for the possibility of protecting these terms as collective or certification trade marks. Section 43 defines collective trade marks as “marks capable of distinguishing in the course of trade, goods and services of persons who are members of any association from goods or services of persons who are not members thereof”. Section 43 (2) specifically states that a “geographical name or other indication of origin” may be registered as a collective mark. This effectively overrides the prohibition in section 10(2)(b) against registration of a geographical name as a trademark. Rules governing the registration of a collective trademark must specify the person authorized to use the mark, the conditions of membership of the association and, where applicable, the conditions of use of the mark including any sanctions against misuse. Registration as a collective mark takes place in the name of the association as the proprietor of the mark.

Section 42 provides for registration of certification trade marks and states that “a mark capable of distinguishing, in the course of trade, goods or services certified by any person in respect of [...] geographical origin [...] from goods or services not so certified shall [...] be registrable as a certification trade mark in respect of [...] such goods or services”. In the case of a certification mark, it is required that the person in whose name the mark is registered not trade in the goods or services in respect of which the mark is registered. Importantly, the application of certification trade marks for protection of geographical indications is limited to

geographical indications which do not actually consist of geographical place names, as no exception is created for registration of geographical names (which are by nature descriptive) as is under section 43(2).

4. TRIPS compliancy

As a founding member of the WTO, South Africa must comply with the minimum requirements for the protection and enforcement of intellectual property rights, as provided for in the TRIPS agreement. TRIPS does not provide a specific system of protection and merely requires that members provide the “legal means” to prevent the misleading or unfair use of a geographical indication. As such, Member countries are required to adopt national legislation and regulations in order to implement the rules laid down as minimum standards in the TRIPS provisions.

The question arises what “legal means” WTO members have to put in place for the protection of geographical indications domestically. Different countries have adopted different approaches. Of these, the main methods of protection include: (a) consumer protection and unfair competition laws, (b) trade mark registration systems, (c) administrative schemes of protection and (d) *sui generis* protection for geographical indications. As mentioned, there is no specific law or register protecting geographical indications. Instead, South Africa’s compliancy is based on a combination of consumer protection and unfair competition laws, its trade marks registration system and an administrative scheme for the protection of its geographical indications for wine.

Under South African trade mark law, registered trade marks (including registered certification and collective trade marks) are protected against use of identical or confusingly similar marks in respect of the goods for which they are registered, or goods which are so similar that use of an identical or confusingly similar mark could lead to deception or confusion (sections 34(1)(a) and (b)). In addition, well known registered trade marks are protected against dilution in that no persons may use identical or similar marks in respect of any goods or services, where such use is likely to take unfair advantage off or be detrimental to the distinctive character and reputation of the well known mark (section 34(1)(c)). This dilution provision applies even where there is no deception or confusion. In the event that the geographical indication is a well known mark, it will thus be protected against use on any goods or services, regardless of the absence of deception or confusion, provided unfair advantage is taken of the geographical indication. Registering a geographical indication as a certification or collective trade mark consequently gives far reaching protection to the geographical indication in that neither an identical nor a confusingly similar mark may be used in respect of goods identical or similar to the goods for which it is registered. Registered trade marks in South Africa therefore, enjoy wider protection than the minimum standards required for geographical indications under TRIPS.

The higher level of protection required by TRIPS for geographical indications for wines and spirits under Section 23 is furthermore, provided by the Liquor Products Act (section 12):

“[U]sing any name, word, expression, reference, particulars or indications in any manner, either by itself or in conjunction with any other verbal, written, printed, illustrated or visual material, in connection with the sale of a liquor product, in a manner which conveys or creates, or is likely to create, a false or misleading impression as to the nature, substance, quality, composition or other properties, or the

class, cultivar, origin, age, identity, or manner or place of production of that liquor product."

The "false or misleading" standard means that a geographic indication need not be misleading in order to be prohibited. Even a statement that provides the true origin of the product may be unlawful in terms of this provision.

5. Practical implication of the current legal framework: The Rooibos experience

The near loss of the name Rooibos in die United States served to a large extent as catalyst for the industry's move towards protecting the name from future misappropriation. The legal options available to the Rooibos industry for asserting exclusive rights to the name Rooibos, illustrate the practical implications of the South African legal framework for protecting geographical indications. Registration of the name Rooibos as a geographical indication in the EU is the strongest form of protection currently available to the Rooibos industry. As a point of departure therefore, the industry's main objective at this stage is to obtain registration for the name Rooibos in the EU under EU Regulation No. 510/2006. As mentioned, the first step towards obtaining geographical indication registration in the EU is to protect the name domestically. As an equivalent and reciprocal level of protection is no longer required it may now be sufficient if Rooibos is protected domestically under trade mark laws and not necessarily under an equivalent geographical indication registration system.

At this point the industry may choose to follow one of two options:

Option A:

The industry may seek to have the name Rooibos protected under trade mark law through registration as either a collective or certification trade mark. This process may take as long as 6 years depending on possible oppositions and bearing in mind the South African Registry Office's delay in issuing registration certificates. Given the lack of precedence, it is at this stage unclear whether an application for registration of a geographical indication in the EU can be brought prior to the actual registration of the domestic trade mark i.e. on the basis of a domestic application only. This would avoid the need to wait +/- 6 years for a registration certificate.

Option B:

The industry may also elect to pursue protection of the name Rooibos through registration as a geographical indication within South Africa. As mentioned, South African legislation does not currently provide for registration of a geographical indication *per se* and geographical indications may currently only be registered as a collective trade mark or in limited circumstances as a certification trade mark. Option B would thus entail approaching Government to provide *sui generis* legislation for registration of a geographical indication. This process, if successful, is once again likely to take several years. The possibility of convincing Government to this effect should be seen against the backdrop of South Africa's broader position in international trade negotiations as well as the negative perception geographical indications enjoy in South Africa as a result of the SA-EU Trade, Development and Cooperation Agreement, in terms of which it has had to relinquish names such as Port and Sherry. It may also be noted that in view of the Department of Trade and Industry's proposed legislation to protect traditional knowledge (see section 6 below), which provides amongst others for the possibility to register a geographical indication as a certification or collective

trade mark, it is unlikely that Government will agree that there is a need for legislation for the registration of a geographical indication *per se*.

The industry may also elect to pursue option A and B concurrently. However, it should be noted that a request for registration of a trade mark under option A may tactically weaken the arguments to be made for *sui generis* legislation under option B, as it will be more difficult to convince Government that trade mark laws provide insufficient protection.

6. The future of geographical indication protection in South Africa

In a context where geographical indications are part of a larger trade agenda, it is unlikely that the South African Government will change position on the protection of geographical indications under Trade Mark law. However, as part of the Government's move towards protecting traditional knowledge, an Intellectual Property Laws Amendment Bill has been drafted. It defines geographical indications for the first time in South African law and specifically provides for the registration of geographical indications as a certification or collective trade mark. The DURAS project has contributed significantly towards creating awareness and educating Government officials on geographical indications and has thus played an important role in these proposed legislative amendments.

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5. CASE STUDY DOCUMENTATION

A differentiated approach tailored to the specificity of the cases

The selected case studies were extensively developed and all key aspects for properly implementing GI strategies were looked at: product characteristics and links to the 'terroir', market attractiveness of the product, as well as the legal and organizational aspects.

The development of each case study was based on working with people to define their GI related needs as previously mentioned. Thus, besides collecting standardized framework to obtain key information in order to understand and compare the different local experiences, the research team made use of different research processes and methodologies. This was largely driven by the different levels of maturity of industries with regard to collective organizations, and quality management and signaling, and therefore their more or less proximate interest in developing a GI. In essence it implied that the research process was tailored to the local and industry realities of each case study as illustrated below.

In the Karoo lamb case for example, it appeared particularly important to first of all understand and scientifically determine (see this section point F below) what is behind the geographically based reputation of this famous South African product. Is the idea vested in folklore that Karoo lamb tastes differently and better than lamb produced elsewhere true and scientifically verifiable and is this taste or attributes of the product uniquely linked to the 'terroir' of the Karoo? There is however also the additional complexity that there is no specific collective action to promote and protect the Karoo lamb and usurpations are very common. Karoo lamb provides a strong case of a GI based on the folklore and existing perceptions but a number of sequential actions needed to be initiated to establish the potential and need for a GI type IP protection system.

The Rooibos case (see this section point B below) provides a much clearer case and for that reason the research process has been shaped with the aim to accompany the industry in following the full route towards submitting a GI application to the EU and applying for IP protection in South Africa. It also represents the most advanced initiative of IP protection at the industry level and is to a certain extent playing a role of a pilot case to see how GI's could be developed in South Africa and in a sense presents a role of model for other agricultural industries. The industry is furthermore playing the role of lobbying towards the government and in particular the DTI for the development of an appropriate institutional framework.

In the Honeybush case, despite a strong potential, there is currently little community drive which is related to the fact that the industry is still in its infancy (see this section point C below). However, the importance of quality assurance of Honeybush was collectively recognized, and it was decided that GI could be one way of achieving this. It was agreed that given that the industry is in its early stage of development, the focus of the Honeybush GI committee should be broader than just GI labelling issues and that it should include other quality related dimensions associated with the possible standardization of Honeybush quality.

Both in the Camdeboo mohair (see this section point E below) and in the Karakul pelt (see this section point D below) cases, the research revealed how the two industries have in a sense used the GI philosophy to establish IP regimes that operate as certification trade marks. The existing IP and quality management strategies in these two cases constitute also the core of the intellectual debate on the application of IP regime since they are distinguishing features between the two cases. In the one case (Karakul) there is strong public involvement as opposed to the totally privately managed Camdeboo Mohair scheme. In both cases our

interaction with the industry role players revealed important ideas on how government as well as groups of farmers can utilize IP management tools to increase the value of their product and at the same time protect this value against usurpation.

In the Kalahari Melon Seed Oil (see this section point A below), a partnership was established with the NGO CRIAA (www.criaasadc.org) for her to drive the case study given its in depth knowledge of and involvement in this industry. The industry being in a very early stage of commercialization and organization, stress was put on facilitating a strategic planning workshop for the industry within which participants were briefed on GI and IP implications and which acted as a first Industry meeting (as described in section 3 above. Stakeholders reached agreement on the way forward, including pursuing on GI and follow-up activities related to the forming of a Stakeholders' forum as premise for a structured industry body.

Below are the results of the case study documentation. Some reports have been reproduced extensively. Others have been synthesized for the purpose of this report.

A. KALAHARI MELON SEED OIL CASE STUDY

1. ESTABLISHMENT OF THE SPECIFICITY OF THE PRODUCT

(Description of the production, the geographical area, substitutes, markets)

1.1 Description of the product and use (including variability)

1.1.1 Description of the product

The product is the lipid oil from the seeds of the “Kalahari Melon” (KM) or “wild watermelon”, indigenous to Namibia and more broadly to the Kalahari basin of Southern Africa (Kalahari Desert and associated Kalahari sandy soil areas). Kalahari Melon, also known as “Tsama” or “Tsamma” is a bitter, small-fruited melon of the Cucurbitaceae family, recognised as the wild progenitor of the cultivated watermelon, *Citrullus lanatus* (Thunb.) Matsum. & Nakai (Maggs 1998).

The “Kalahari Melon Seed” (KMS) oil is rich in linoleic fatty acid (around 55%-70%) and oleic fatty acid (around 10%-24%), which gives the oil excellent nutritional qualities and emollient properties, especially for skin care (softening and healing qualities) (PhytoTrade 2008).

KMS Oil Technical Specifications:

| | |
|---|--|
| INCI name: | Citrullus lanatus (Kalahari Melon) Seed Oil |
| CAS No: | 90063-94-8 |
| EINECS No: | 290-054-3 |
| Description: | Yellow coloured oil, which is liquid at room temperature |
| Specific gravity: | 0.91-0.92 |
| Iodine value (gI ₂ /100g): | 120-130 |
| Saponification value (mgKOH/g): | 180-200 |
| Acid value (mgKOH/g): | 5 max. |
| Peroxide value (mEqO ₂ /kg): | 15 max. |
| Fatty acid composition: | Range |
| 16:0 palmitic % | 7.0-13.0 |
| 18:0 stearic % | 5.0-11.0 |
| 18:1 oleic % | 10.0-24.0 |
| 18:2 linoleic % | 55.0-70.0 |
| 18:3 α-linoleic % | 0.5 max. |
| Minor components % | 0.1 max. |
| Manufacturing process: | Cold pressed (T<60°C), no solvents or chemicals used. |

The use of the species *Citrullus lanatus* as a source of seed oil is well known and documented in many parts of the world, particularly in West Africa (Nigeria, Mali) and Southern Asia (India, Pakistan, China etc.).

The uniqueness of KMS oil, however, resides in specific features related to its Southern African origin:

- The Kalahari Desert System is the centre of genetic diversity of the species and most probably a major centre of origin of the domesticated watermelon varieties
- Kalahari Melons have a long history of traditional use as food and source of cosmetic oil in Namibia and adjacent countries within the Kalahari Desert system
- Wild, semi-domesticated and traditional landraces are still widely used by rural communities in Namibia and Southern Africa

- A high-value niche market for “community-traded” KMS oil from Namibia has recently been developed in the international cosmetic industry.

1.1.2 Uses

Traditional uses of KM and KMS oil across Southern Africa are not well documented probably because of its marginal status in today’s rural livelihoods. Wild KM still retains its feature of an emergency source of human food and an animal feed for agricultural and agro-pastoral communities in times of drought, as well as a source of water and food for inhabitants of the Kalahari Desert, notably the San.

However, traditional uses of KM and KMS are better documented in Northern Namibia, particularly in the North Central Regions (NCRs) and in Caprivi, where local landraces are still widely cultivated (or semi-cultivated) in crop fields (Maggs 1998).

In the NCRs, KMS oil is traditionally used as skin application/moisturiser and massage oil, to a limited extent for cooking, and medicinally to treat earache/remove foreign bodies from the ears, by filling the ear with the oil.

The oil cake, remaining after the oil has been extracted, is used mainly as an animal feed (chickens, pigs, dogs), but also to treat malnutrition in people, sometimes as a sauce with mahangu (pearl millet) porridge and to treat eye conditions by eating (the type of condition is not determined, but suggests a vitamin or mineral deficiency) (Carr 2007).

1.2 Human factors

In Northern Namibia, the skills and knowledge of the producers lies in the management of the crop, selection of the watermelons for different purposes, the seed and oil extraction process and oil quality determination. The knowledge pertaining to the crop and the extraction processes is held mainly by the women (who provide much of the labour required for the process), but this knowledge would appear to be widespread rather than being held by only a few in the region. There do not appear to be any secrets or closely held information about the product (Carr 2007).

It is recognised that watermelons fulfil an important role in the culture as an emergency food resource in times of drought, e.g. in 1946 in Northern Namibia (Mallet & Carr 2008). Notwithstanding this significance, there are no obvious cultural (ceremonies, festivals, beliefs, taboos) or historical (stories, tales) associations with this resource, contrary to some other resources in the NCRs, such as Marula (*Sclerocarya birrea*).

1.3 Production processes

There is a well defined and similar approach by producers to the traditional production of watermelon seed oil in the NCRs.

Although watermelons grow widely as a “wild” resource in less densely populated areas, the watermelons used for the product are semi-cultivated landraces, mainly by intercropping with pearl millet (mahangu). The watermelon landraces may be planted with the first mahangu crop or emerge arbitrarily by themselves in the field from the previous season’s fruits left for the animals. Watermelons depend entirely on rainfall during the summer months for germination and growing, as no irrigation of the fields is undertaken.

There is minimal management of the crop other than to thin the watermelons to reduce competition with the other crop plants. In some cases the fields may have manure added and be ploughed before the mahangu is planted, but this practice is essentially for the mahangu crop and not for the watermelons. No fertilisers or pesticides are applied to the crop.

Selection of the watermelon varieties grown is apparently not widely done. The different cultivars are identified by the producers in cultivated fields by the size and colour of the fruit and the leaves of the plants. However, the size, colour and shape of the seeds are clearly different between the traditional cultivars.

Typically, the watermelons preferred for oil extraction have smaller, darker fruits and smaller, lighter coloured leaves. Seeds that are preferred for eating are obtained from larger, lighter coloured fruits on plants with larger, darker leaves.

The watermelons are harvested once the leaves begin to turn brown/yellow. There is no indication that there is any knowledge regarding an increase in the oil content of the seeds the longer the watermelons are left in the field after the leaves have died back, before harvesting and oil extraction. The watermelons are harvested by both men and women and stored in a dry, aerated area until after the mahangu crop has been finalised. Only then are they further processed for seed and oil extraction.

Women extract the seeds by pounding the watermelon fruits with a pestle, before drying the flesh and seeds and pounding more until the seeds are released from the flesh (this pounding does not damage the seeds). Water is added to wash any remaining flesh off the seeds, before they are dried and stored in a cool, dry place for re-sowing, selling or oil extraction.

The traditional process of oil extraction is described as slow and time-consuming. The seeds are roasted in a pot on a wood fire and thereafter pounded with the traditional mortar and pestle. The resulting flour is placed in water in a pot and boiled. The “foam/scud” that appears on the water surface is the oil and is skimmed off. The pot may be boiled until the water has almost evaporated and only the seed cake with the oil above it remains. The oil was traditionally stored in calabashes and is now stored in clean, glass bottles in a cool place out of direct sunlight.

The quality of the traditional oil produced is determined by three factors, i.e. colour, smell and taste. The preferred colour is a clear honey-straw, although some cloudiness to the oil will be present, as no filtering is done. A burnt smell indicates that the oil was spoilt in the extraction process, especially if accompanied by a dark colour and burnt taste (Carr 2007).

Nowadays, the extraction of oil from the seeds for the international market is done by cold-pressing the seeds with a small-scale mechanical expeller, an obvious innovation and departure from the traditional process, resulting in clearer oil free of residues (enhanced quality for the market). As such, this represents the only significant departure from the traditional production process to date.

1.4 Indication (place-names, insignia, geographical location, slogans)

The wild watermelon progenitor, *C. lanatus*, is distributed widely throughout the greater Kalahari and the centre of origin of the cultivated form, watermelon, is recognised to be the Kalahari Desert. Cluster analysis and comparison of the various morphotypes of this species,

including wild types and local landraces, as well as commercial cultivars showed a vast and clearly defined range of diversity exists in the following forms:

- Wild populations
- Modern cultivars for commercial purposes
- Watermelon, cooking melon and seed melon landraces of the traditional agrosystems in northern Namibia
- Possible introgressed types regarded as agronomic weeds.

Farmers in northern Namibia traditionally grow a variety of *C. lanatus* that are distinguished by and classified according to fruit morphology, ecological requirements and usage. This crop, adapted to the unpredictable climatic conditions, provides an essential food source (Maggs-Kolling 2002).

This supports the indigenous classification system used in the northern regions of Namibia, which identifies four distinct types, i.e. oilseed watermelons (typically the Kalahari Melons), seed watermelons (for roasted seeds), sweet watermelons and cooking watermelons. The seeds from all these cultivars can be used to make oil (Mallet & Carr 2008).

In the NCRs, farmers call the different varieties of watermelons which give different types of seeds (generically called *Eenanga* in Oshikwanyama or *Oontanga* in Oshindonga) as follows:

- The typical KMS used for making oil and also cooked as a roasted flour (*Eenanga domukokotwa* or *Oontanga dhomukokotwa*)
- The Eeshu seeds eaten roasted and also used for making oil (*Eenanga dolumbada* or *Oontanga dheeshu*)
- The seeds from the sweet watermelons, often kept for replanting but sometimes used for oil (*Eenanga damanuwa* or *Oontanga dhomanuwa*)
- The seeds from the cooking melons, kept for replanting and sometimes used for oil (*Eenanga domaliwa* or *Oontanga dhomaliwa*)

The indigenous names given to *C. lanatus* are many and vary according to the regions and language groups across the Southern African Region (Sepasal 2007). Tsama/Tsamma melon appears as a name recognised and shared in the Kalahari area around the borders of Namibia, Botswana and South Africa, but only there. In the NCRs, the generic name for the Kalahari Melon is “Etanga”, in Kavango “Matanga” and in Caprivi “Tunyangombe”.

The reference to the resource as “Kalahari Melon”, “Kalahari Melon Seeds” and “Kalahari Melon Seed Oil” has started being used in Namibia and some parts of the SADC Region with reference to the “modern” oil processing method, the new product and the emerging export market for the oil as a cosmetic product ingredient.

1.5 Area of production

The case study area is the four regions of the north central part of Namibia, collectively known as the NCRs. It is an administratively clearly defined area and relates to the traditional area of the Oshiwambo-speaking population groups. KM occurs widely throughout the NCRs. Efforts are underway in these regions to promote community-based KMS production to meet the international demand for oil.

There are few clear geographical markers designating the boundaries of these regions. To the far west, there is a distinctive change in topography as the Kalahari gives way to the mountainous transition zone to the coast and possibly representing the western limit of the

resource's occurrence. To the south, the limit of the region can be defined by Etosha Pan; however, this is not an extensive or convincing geographical boundary.

Of course, watermelons occur beyond these boundaries, in the Kavango, Caprivi, Otjozondjupa and Omaheke Regions of Namibia, and beyond the boundaries of Namibia, well into other countries within the Kalahari ecosystem, where they are also used for various purposes. Again, the boundaries of this larger region are defined politically, with few naturally obvious features delineating them.

1.6 Geographically distinctive features

The name Kalahari is used in a broad geographical sense to denote a vast arid ecosystem of the southern Africa region. It spreads over much of Botswana, Namibia, south-western Zambia and includes areas of south-eastern Angola, north-western South Africa and parts of Zimbabwe. The Kalahari system is typified by sand and loamy soils often overlying calcrete and is characterised in most part by good, rapid drainage and absence of surface water. Its climate is sub-tropical, with unpredictable and variable summer rainfall being the norm and the region is prone to regular drought. Rainfall average varies from 200mm in the southern Kalahari to over 600mm in the northern parts of the Kalahari.

The general topography of the Kalahari can be described as relatively flat, characterised by low, consolidated sand dunes and shallow, seasonal pans.

There is a general absence of surface water in most areas for most of the year and there are few perennial rivers. Water is largely from subterranean sources or seasonal rainfall.

Seasonal average temperatures vary greatly, from a low 2-5 degrees Celsius in July to more than 32 degrees Celsius in January, with great variation in daily temperature.

The vegetation of this huge area is predominantly that of the savanna biome and is described as various types of woodlands or bushveld related to the dominant species. The entire NCR falls within this biome. To the west and south (Omusati and Oshana Regions) the vegetation is described as mopane (*Colophospermum mopane*) woodland and shrub woodland, growing in shallower soils. In the Ohangwena Region, to the north east of the NCR, the vegetation is that of tree savanna, more specifically *Baikiara* and *Pterocarpus* woodlands, growing in relatively deep sand. The Oshikoto Region, to the east and south of the NCR, is Kalahari bushveld, dominated by *Acacia*, *Colophospermum* and *Terminalia* species.

1.7 Level of use, marketing or exposure the product has enjoyed so far (reputation)

The traditionally processed oil is quite different from the "cold-pressed" KMS oil in terms of colour, smell and taste. Due to its production method, the traditional oil contains water in emulsion and solid particles. This oil is widely sought after in the NCRs and by people originating from these regions, due to its reputation as a quality skin lotion and according to the producers, there is a continuous demand for it. However, its production remains home-based in rural areas and its marketing confined to the local informal trade in relatively low volumes overall. In Caprivi, the traditional production of oil and its local use is reputed to be disappearing quickly, but this remains unconfirmed (no field-work was conducted in these region by the team).

The "cold-pressed" virgin oil produced with small-scale expeller technology has been marketed in Namibia for over 10 years. Yetu Cosmetics/Oontanga Oil Factory in Ondangwa

pioneered the production and trade of different products made out KMS oil, such as pure and scented oil as body lotion and soap. The local market has remained limited, even with the fast growing tourist niche-market, including the airport duty-free shops.

The international market exposure of KMS oil as a cosmetic ingredient began in 2002 when The Body Shop International plc (TBSI) included refined KMS oil as an ingredient in a body butter product and wider range of personal skin care products. Before the launch of this new product lines in 2002, there had been over 5 years of background work in Namibia and UK, which included the registration of The Eudafano Women Co-operative (EWC) as a “Community Trade” supplier of TBSI (backed up by Yetu Cosmetics/Oontanga Oil Factory). The appellation “Kalahari Melon Seed Oil” dates back from this time, with the clear intention to differentiate the Namibian (or Southern African) product in the international market and thus protect local producers against competition from other parts of the world (du Plessis 2002).

A second international buyer (Aldivia), a French speciality lipid oil formulator to the cosmetic industry introduced through PhytoTrade Africa, has become particularly interested in KMS oil, especially for the rapidly growing Fair Trade and Organic certified market segments, but could not so far get sufficient supply from Southern Africa and Namibia in particular to commercially develop this product beyond small volumes.

From 2001 to 2006 Namibia exported the equivalent of some 300 tonnes of KMS or around 40 tonnes of MKS oil to Europe (UK mainly and also France). The current demand for oil (from 10t to over 30t per annum) is not matched by the supply, presently limited to the NCRs of Namibia, a situation which may begin to erode the confidence of international buyers in the product from Namibia (Mallet 2007).

However, the existing reputation of KMS oil in the international cosmetic ingredient industry is strong, not because of intrinsic novel properties but due to its specific features:

- The excellent emollient qualities referred above
- The low- or no-input agricultural production conditions, virtually “organic” and from an unpolluted and clean environment
- The present and historical uses of the fruit, seed and oil help in documenting the safety of the product in the local and international market
- The pure, natural, virgin, cold-pressed characteristics of its production
- The community traded aspect of the supply chain, which provides a strong marketing image of a product benefiting poor rural communities and women in particular.

2. DESCRIPTION OF THE CURRENT INDUSTRY FRAMEWORK

2.1 Collective structures in support of market access and quality management, representative body of the industry.

With the KMS oil industry being relatively new and still under-developed compared to the market potential of the product, there is no overall representative body of the industry as such in Namibia or in Southern Africa, which would include representatives of organised primary producers of KMS, supply chain marketing intermediaries, KMS oil processors/exporters, local retailers/formulators, and the public and private development sector.

In Namibia, KMS is not a “controlled product” under the Namibian Agronomic Industry Act of 2002 and the industry has no obligation to be formalised under the Namibian Agronomic Board.

However, the Eudafano Women Co-operative (EWC) has been representing a significant part of the value-chain: rural women producers of KMS, affiliated village-based Associations as marketing intermediaries, EWC-owned Factory in Ondangwa as KMS oil processor, and EWC as a whole as the registered CT supplier of TBSI and exporter of KMS oil.

The EWC’s constituency is limited to the NCRs of Namibia and has been procuring KMS for its factory beyond its strict membership, from individual farmers and other organised marketing groups, such as the King Nehale Conservancy in Omuthiya (Oshikoto region), which have been quantitatively much more significant producers of KMS than women members of EWC Associations. Regional Farmers’ Co-operatives in the NCRs are emerging as organised marketing intermediaries for KMS. The involvement of other primary producers and KMS marketing intermediaries in other regions of Namibia than the NCRs is a potential avenue, still to be proven.

Besides the EWC Factory, another private processor of KMS oil using the same processing technology, Oontanga Oil Producers CC (OOP) is also operating in Ondangwa but without a direct export access as a CT supplier of TBSI.

In Namibia, the Indigenous Plant Task Team (IPTT) is Public-Private forum and a government-mandated national co-ordination body for the promotion of indigenous plants and products. However, its developmental role, which includes financing research and development in the Natural Product sector, does not make it a KMS oil industry representative body.

PhytoTrade Africa (the Southern Africa Natural Products Trade Association) is constituted as a trade association, with members across the SADC Region from primary producers’ organisations, processors, traders, manufacturers and developmental service providers (mostly NGOs). Although KMS is part of the focal species for PTA’s work and KMS oil a priority product, not many members are actively engaged in KMS oil business apart of the Namibian members (EWC, OOP, CRIAA SA-DC and IPTT). However, there are indications of interest and potential production from members in Botswana and South-West Zambia, and possibly Zimbabwe.

There are clearly a number of structures in support of KMS oil development and market access in Namibia and for the Southern African Region, all of which play (and would play a greater) role in quality management along the KMS oil value-chain. But it is also clear that there is not yet a fully representative body of this emerging industry, which would be recognised in Namibia or in the SADC Region.

However, a first Namibian KMS stakeholders’ meeting took place recently in North Central Namibia (Mallet & Carr 2008). Namibian stakeholders agreed on the formation of a representative KMS oil industry body comprising producers and processors, as well as other public and private stakeholders. Although the detailed roles, form of organisation and composition of this KMS industry body were left to a following workshop, the meeting agreed that one common purpose of the industry was to improve and manage the good

reputation that Namibian KMS oil has attained in its international niche market (See Proceedings' executive summary in *Annex-2*).

2.2 Farming system

Production of melon seeds is undertaken by a number of small-scale, community-based farmers (usually families) in the NCRs. The farmers are geared to mainly crop production, such as pearl millet, sorghum, maize, cow-peas for subsistence purposes, with melons intercropped, as a “secondary” crop. There is no “free-hold”, “commercial farm” production.

2.3 Supply chain: current relationship of farmers with downstream actors (processors, retailers etc.)

Less than 500 women members of EWC Associations (out of a total of around 5'000 women members) are regularly selling KMS to EWC Factory. As indicated earlier, not all farmers producing KMS are affiliated to EWC. OOP as a private profit-making enterprise has no affiliated or registered primary producers; even so it has some preferential buying arrangements in some producing areas. OOP currently produces small volumes of KMS oil for their own product and supplies other local companies such as Africa Life Style, with oil. Conservancies, such as the KNC, are another form of organisation in the rural areas and are potentially organised producers of KMS. Conservancies are not precluded from supplying to other producing bodies, such as EWC.

The relationship between EWC Factory and farmers producing and marketing KMS revolves around a pre-agreed price structure, which guarantees a fixed remuneration to producers and allows paying a margin to organised producers' marketing groups for bulking KMS at assembly centres and covering the costs of transport delivery to Ondangwa. In addition, basic visual quality control is performed at EWC Factory upon delivery and marketing groups are expected to hand-over KMS intake and delivery records listing individual farmers, quantities supplied and bag numbers to ensure traceability of the raw materials and a minimum level of transparency in the financial transactions.

2.4 Ownership structures surrounding the indication and existing attempts to register ownership (trademarks...)

There is no registered ownership over the product. Currently the oil is sold under the name (appellation) “Kalahari Melon Seed Oil” so as to create a local and regional identity for the product, based on the Kalahari ecosystem and genetic variety, to differentiate and protect the product in the international market. Oontanga Oil Producers CC, one of the oil processors in the NCRs, is a registered trade name.

2.5 Existing certification bodies within the indication

The GI is only at a proposal stage and there are no existing certification bodies.

2.6 External support

CRIAA SA-DC has been supporting EWC, including its KMS oil business and has been a service provider to the IPTT in the development of the emerging international supply opportunity, in organising the producers into a supply chain and creating linkage to the external buyer(s). Other actors have been mentioned in §2.1 above, i.e. IPTT and PTA.

The IPTT is supporting a Kalahari Melon Seed Oil Development project (supply chain scaling-up for 2008/09) and a KMS breeding project (since 2006), which is aimed at selecting

improved lines of KM for oilseed production (improved agronomic traits, higher seed yield per fruit, higher oil content, appropriate fatty acid composition).

Through PhytoTrade Africa's partnership with commercial companies in the international cosmetic industry, international registration and technical specifications for the KMS oil have been achieved (see Box above in § 1.1.1).

In Namibia, government Ministries include the MAWF, MET/ICEMA, MTI, and NGOs include the Rössing Foundation for pilot organic certification and support to the KNC, the NNFU, and for the Caprivi Region the IRDNC and WWF/CEDP project.

2.7 Link between GI protection and biodiversity conservation

Biodiversity relates to the wild resource and the traditional landraces. There is, in Namibia, an existing gene pool with a high degree of diversity.

The developing KMS industry will have to consider the landraces and selective breeding process to improve lines based on this diversity. The KMS industry is not based on promoting production as a "mono-cash crop", but maintains its intercropping status.

Currently the resource is semi-cultivated or cultivated; therefore the challenge is the domestication of the wild watermelon if feasible. If commercialisation is successful there could be a push for domestication. There is already a breeding programme underway to promote the positive agronomic features of the resource, such as higher oil yields/content of the seeds.

By defining the resource within a geographical area, the integrity of the resource in terms of its genetic variability would be enhanced. This is an important consideration for genetic diversity conservation of the existing and productive landraces as well as the wild resource.

Any development raising the profile of watermelons and the economics of the industry, while promoting the protection of biodiversity is worthwhile pursuing. With no commercial benefits, it is questionable whether the public sector would invest time and effort in the resource. In this regard, GIs would contribute to the justification for research and protection in line with the government's national agricultural diversification and poverty alleviation development policies.

Through the establishment of an association or controlling body for the industry, as required for a GI, there is some scope for regulating the use of the resource to ensure sustainability, traceability and monitoring. Hence, some protection and management of the resource is possible, thereby contributing to biodiversity conservation.

3. WHAT IS AT STAKE AND WHICH STRATEGIES HAVE BEEN DEVELOPED? (Problems, sources of conflict, challenges, potential contributions, prospects)

3.1 The challenges/problems facing the emerging industry include:

3.1.1 The emerging KMS industry is market driven, with a high demand for supply. The need to expand production to meet demand is a major challenge to the emerging KMS oil

industry. The KMS supply chain and supply network remains under-development with low volumes of KMS oil processed compared to the actual demand on the international market. The challenge is the real need to rapidly increase production to meet demand for the product on a regular basis. By not meeting demand there is a danger that the market may begin sourcing an alternative, or drop KMS oil as a cosmetic ingredient. Watermelons used for oil are produced in large quantities in other parts of South East Asia and West Africa. This trade is not subject to any fair trade registration and represents a potential threat to the KMS producers. A further threat is the large scale commercial production of *C. lanatus* in, for example SA. In this regard, it is more desirable for community-based producers to cooperate than compete within the SADC Region, by finding ways to harmonise across the Region on production, quality and price.

The NCRs producers are the only significant suppliers of KMS oil in the SADC Region. There are efforts through PhytoTrade Africa to expand volumes of supply by organising community-based producers in other SADC countries, most notably Botswana. At the same time, there is potential to expand production in Namibia to the Kavango and Caprivi Regions, and to a lesser extent, the Otjozondjupa and Omaheke Regions, where traditional use of the resource occurs.

3.1.2 The associated problem is the need to defend a high price for the products to sustain the development of the nascent industry before economies of scale (supply chain and processing) can be envisaged and a more competitive position can be attained in the market. The industry is developing strategies to promote the reputation and protect the price of its product in the market, by registering KMS with the Fair Trade Organisation with a view to having the supply chain certified as “fair traded” (an initiative of PTA), investigating the option of organic certification and emphasising the ecologically friendly aspects of production.

3.1.3 Maintaining product quality so as to maintain the reputation of the product, through the implementation of standards for product production methods throughout the process and the maintaining of the genetic diversity of the resource. The product already has a reputation for its quality as a cosmetic ingredient. There is a potential threat to diversity from wild harvesting as the industry grows to meet the demand. The promotion of KMS and traditional farming systems support genetic diversity and the important landraces.

3.1.4 This challenge, crucial yet unresolved, concerns the geographical scope of any GI/Appellation for KMS oil. The appellation “Kalahari Melon Seed” has been adopted by the original stakeholders in the emerging industry as an identity for the product in the market and reflects the occurrence of *C. lanatus* throughout the Kalahari, with its associated and traditional uses and practices.

The NCRs of Namibia have the only organised community-based producers within the SADC Region currently supplying international buyers with KMS oil. A restrictive approach limited to the geographical area of the NCRs and possibly adopting an appellation such as Etanga/Oontanga would not be able to resolve the supply constraints. A national Namibian approach could increase supply volumes, but has no specific unifying name.

A broader regional (SADC) approach, for which the “Kalahari” appellation would be appropriate, has no other obvious name other than “Kalahari” for a regional resource. This would leave the option open for national names such as Namibian Kalahari Melon Seed Oil,

allowing for development of the industry on a national level, while not precluding other SADC countries from sharing the identity of the resource as their industries emerge. It is too early to conclude on this and requires further consultations with the stakeholders.

3.2 Potential for GI

In conjunction with other development efforts, a GI approach would provide a valuable contribution in addressing the following problems and challenges:

- The protection of KMS oil against competition from the same oil produced cheaper in other parts of the world, which would not have the same ethical trade credentials,
- The protection against the potential threat of more competitively priced watermelon seed oil from large-scale “commercial farms” within Southern Africa, if ever technically feasible and economically viable,
- The definition and management of “quality standards” for the seeds and oils, not only in terms of technical quality but also in terms of traceability, ethical and eco-friendly trade.
- The organisation of producers and the harmonisation of prices across various rural community-based production areas within Namibia and within the Southern Africa Region.
- The protection of genetic diversity including the wild resource and better protection for the semi-cultivated forms (landraces), to resist the loss of these cultivated forms.

3.3 Prospects

The prospects of a successful industry for KMS oil can be considered positive, subject to the resolution of the challenges and problems. It can be assumed that the industry will continue to grow and develop. It is clear from the consultations with stakeholders that the industry is, however, too new and stakeholders lack the wider picture to yet fully grasp these challenges. The establishment of a Producers’ Forum on a national level will may contribute to the increased capacity of the stakeholders and the development of the industry in Namibia and regionally, while not restricting the expansion of production in the already productive areas.

4. SPECIFICITY OF THE CASE STUDY

4.1 Interesting perspectives of case study

4.1.1 The traditional oil is not the product having market potential, but rather the cold-pressed oil from the same production line, representing a break from the traditional oil production technology. Currently, KMS oil is an “intermediate” product, for a final product. The long term vision is to develop the local cosmetic industry.

4.1.2 Geographical limitation: of interest is how to articulate a national strategy in a regional set-up and how to integrate other producing regions, both nationally and regionally.

4.1.3 Emerging/new industry: there is no (not yet?) established, broad organisational set-up beyond the EWC and there is a question as to how this capacity can be develop. The industry is not structured enough yet to take on all that is needed to define what goes into an application for a GI and how to defend it.

4.1.4 GI is an interesting tool as protection and labelling/identity promotion relating to ethical trade and product reputation for the KMS industry, rather than for any trade secrets or recipes. There is a question as to whether a GI is appropriate for the KMS industry, or

whether labelling the product in a distinct way to promote its identity e.g. in terms of eco-friendly, ethical trade would be enough and whether there is scope for a number of combined strategies, in promoting the product identity.

4.1.5 GIs link to biodiversity protection, as the KMS oil production is based on the existence of landraces in the NCRs.

4.2 Potential to benefit from GI protection

The industry has a dynamic element of it as a whole, therefore, if a GI approach was feasible and desirable it would have to consider trends in the industry to greater cultivation, selection of landraces, expanding market strategy, evolution for low production technologies. GI must focus on the way the oil is produced and the trade thereof.

4.3 Appropriate tool for rural development in southern Africa

The Namibian strategy in developing new market opportunities is to focus on high-value niche markets. Tools such as GIs, as well as ethical and fair trade credentials contribute to the value of production downstream, enabling Namibian producers to compete with others in the market.

The establishment of rural grassroots organisations are necessary to support this process, i.e. the supply chain of small producers, producing small volumes. GIs support the establishment of producer associations and representative organisations as part of establishing the claim and supporting the GI status.

There are few “endemic” products, within clearly definable, distinct boundaries within a single area, region or country. GIs could be useful when there is a clearly defined product already in existence, and the resource and production areas are clearly demarcated geographically or culturally.

Most community-based products are not the finally marketed products, but represent a stage along the production process and represents mostly raw materials or semi-processed final products to be refined and developed elsewhere. There is an emphasis on developing capacity to add more value within the country or region, at which point GIs could contribute to product protection.

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B. ROOIBOS CASE STUDY³

1. BACKGROUND

1.1 Rooibos in the USA: South African awakening to the dangers of unprotected intellectual property

Around the turn of the Century the so-called “Rooibos case” captured the headlines in South Africa. The essence of the case is that Forever Young, a South African Company specialising in pharmaceutical and skin care products, registered the “Rooibos” trademark on 12 August 1992 in the United States (USPTO, 2004) and was thus entitled to draw profit from its exclusive rights in marketing rooibos under this name in the United States. When the owner of the Forever Young neared retirement age, she sold the Rooibos trademark in 2001 for \$10 to her long standing US business partner, a company with the name of Burke International (Cape Argus, 2005). Although cancellation procedures was started by Rooibos Ltd (the major Rooibos processor in South Africa) soon after the registration by Forever Young (USPTO, 2004), the whole problem only reached the front pages of the popular press in South Africa when the Wupperthal cooperative (representing the resource poor farmers in Wupperthal) ran into legal problems while exporting their product to the US. During the process Burke International claims to have spent quite a considerable amount (\$250 000) on policing and protecting its trademark (Tralac, 2007). However, probably one of the most insulting incidents was when Burke International demanded royalties from South African companies for using the term Rooibos in the US (Sunday Times, 2004). Further, it must be remembered that Burke International use Rooibos as an ingredient in their skin care products with the result that their imports of Rooibos amounts to less than 1 ton per year. Fortunately (from a South African perspective) a number of the coffee houses in the US wanted to sell Rooibos and thus joined the litigation process (Cape Argus, 2004). The case has since been settled out of court following a ruling in February 2005 by a district court in Missouri in favour of a US company (Republic of Tea) (Tralac, 2007). Nevertheless, this was done at the cost of about \$1 million for the Industry in legal fees before it achieved an agreement with the agent, which recognized officially in June 2005 the cancelling of its registered trademark. This was made possible because the name rooibos was recognized as being a descriptive generic term, commonly used to refer to the herbal tea derived from the *Aspalathus linearis* plant and thus that cannot be used to design a trademark (TRALAC, 2005; Silver, 2002)..

Partly as a result of this specific case some realisations took place in South Africa. These include:

- a) We should not only be afraid of other countries trying to protect their own, but we also have a heritage that is at risk.
- b) The cost of the case represented quite a substantial amount for a small industry.
- c) Who should protect our heritage? Is that the function of government or of the (private) role-players in the industries? This is especially a problem for the smaller industries without a substantial economic base, multiplied by the number of countries where protection is sought.
- d) It is necessary to embark on a serious quest in search of solutions.
- e) Even South Africans cannot be trusted, but may for financial or other personal reasons exploit the collective heritage if it is not protected adequately.

³ Estelle Biénabe and Dirk Troskie

1.2 Institutional developments: from the four provinces project to the registration of Rooibos as a GI

Geographical Indicators (GI), and the implicit use of geographic location as a value adding and product differentiating mechanism, is not unknown to either agricultural producers or consumers in South Africa. South Africa already entered into the so-called “Crayfish Agreement” with France in 1930’s. At the basis of this Agreement is the fact that South Africa relinquished the use of the term “Champaign” on the condition that France would open up its market for South African crayfish. A more formal indigenous system for managing and certifying the link between the product and its specific environment was created with the establishment of the Wine and Spirits Control Act in 1970 (Act 47 of 1970). This system was refined with the establishment of the Liquor Products Act of 1989 (Act 60 of 1989).

Although the Wine of Origin Scheme has been well embedded in the agricultural economy, some of the implications of such a system were highlighted during the negotiations for a Trade and Development Cooperation Agreement (TDCA) between South Africa and the European Union. More specifically, in the negotiations of the Wines and Spirits part of the TDCA the relinquishing by South Africa of specific names such as “Port” and “Sherry” created visions in the mind of the general population of a number of other expressions being under threat. Especially in those parts of the population with strong ancestral linkages to Europe, this led to a feeling of creeping dispossession.

In the Western Cape Department of Agriculture the implications of the TDCA, and specifically the implications of relinquishing certain names, were evaluated. It was found that, although the Port and Sherry Industry at that stage amounted to an annual retail value of R742 million, only 3,3 percent of the crop is being exported. If followed that the replacement terms for Port and Sherry could domestically be introduced while any detrimental effect on the export drive would be limited (Troskie, 1998).

However, almost more important was the realisation that the EU is pushing for similar recognition of non-alcoholic products on the one side while a similar domestic system could not only be used as a product differentiation and value adding tool, but also as a mechanism to protect local names (such as the Rooibos Case discussed in Section 2.1). Following this realisation a Provincial initiative was launched to create the appropriate legislative framework for the protection of what was called “speciality products”. A submission was made to the Provincial Cabinet on 6 May 1999 and in principle approval was obtained to develop draft legislation. See Troskie (2000) for similar arguments as those made to the Provincial Cabinet.

As a result of the approval by the Provincial Cabinet the following four Draft Bills were developed and published for public comment in the Provincial Gazette during January 2000.

- a) Western Cape Designated Agricultural Products Board Draft Bill.
- b) Western Cape Protection of Geographical Indications and Designations of Origin for Agricultural Products and Foodstuffs Draft Bill.
- c) Western Cape Certificates of Specific Character for Agricultural Products and Foodstuffs Draft Bill.
- d) Western Cape Organic Products Draft Bill

It was unfortunate that two sources of pressure led to the fact that these Draft Bills were never enacted. On the one hand the National Government considered the Provincial initiative as trespassing on its Constitutional (Act 108 of 1996) obligation to set norms and standards for the Agricultural Sector while at the same time weakening its negotiation position at bilateral as well as multi-lateral level. The other source of resistance was that some of the local industry bodies saw this initiative as a threat to its powerbase. Especially the political pressure led to the abandonment of the provincial legislation.

Analysis of the potential role of GI continued with publications such as Mendes (2001) and Mendes and Troskie (2001). Momentum returned to this initiative when the Heads of the Provincial Departments of Agriculture of the Eastern Cape, Northern Cape, Western Cape and KwaZulu-Natal met at Cedara on 26 and 27 February 2004. Of the 12 working groups formed at that meeting one was tasked to investigate the role and protection of products with unique characteristics. Incidentally, this was also the only Working Group that produced any tangible results.

The activities of this Working Group was a combination of outsource work as well as in-house activities. The case studies that the Working Group investigated included Amadumbe, Aloe Verrox, Umlequa Chicken and Rooibos. The work that was outsourced included:

- a) The impact of GI on South Africa (Laing, 2005a)
- b) The relationship between GI and the various forms of Trademarks (Laing, 2005b)
- c) An investigation on the potential of Honeybush and Klein Karoo Ostrich as potential GI (Bramley, 2006)

The Working Group has argued that the following arguments could be found in favour of GI:

- a) Enhancing the cultural role of food.
- b) Creating linkages across national boundaries within Africa as well as with the African Diaspora.
- c) Enhancing the financial feasibility of farming.
- d) Protecting indigenous names and property.

The Working Group reported back to the four Heads of Departments at a meeting on 15 November 2005 in Gugulethu, Cape Town. The most important outcome of this meeting was that a decision was taken that the four Heads of Department (and thus the four Provinces) supported the concept of Geographical Indicators and that it proposed that National Institutions such as the National Agricultural Marketing Council (NAMC), Department of Agriculture (DoA) and the Department of Trade and Industry (DTI) should be approached. A meeting with the Chairperson of the Board as well as the Chief Executive Officer of the NAMC took place on 21 April 2006 in Cape Town and was followed by a workshop under the auspices of the NAMC on 24 November 2006 in Pretoria. During the latter workshop representatives of the DoA was also invited. The meeting with the DTI took place on 26 May 2006 in Pretoria and it was decided that the members of the Working Group would be invited to comment on the forthcoming Draft Intellectual Property Rights Bill as well as to make a presentation during the hearings of the Portfolio Committee. The opportunity to comment has been utilized on 4 May 2007 and 12 May 2008. The opportunity to participate in the hearings of the Standing Committee is still eagerly awaited.

2. THE ROOIBOS PRODUCT AND PRODUCTION FEATURES

2.1 The product features and specificity

Rooibos is an herbal tea made from *Aspalathus Linearis*, which is an endemic plant of the fynbos biome in South Africa. *Rooibos* is the Afrikaans word for 'red bush'. *Aspalathus linearis* is one of 278 species within its genus. High levels of morphological variation within *Aspalathus* have been reported in the literature. The range of variation is easily observed in wild *A. linearis* populations throughout the natural distribution area of the species (Dahlgren 1968, Stassen 1989, Van der Bank 1999 and Van Heerden 2003). Historical studies have offered limited but significant insights into the infraspecific taxonomic classification of wild rooibos biotypes. Dahlgren (1968) ascribed these variations to differences in geographic locations.

It has a long history related to a specific territory. Traditionally gathered in the wild, rooibos is nowadays mainly cultivated. Rooibos cultivation practices have been developed over the last century by the different settled populations. It is now strongly associated with the landscape of the Cedarberg region and is a key element of its identity. Even if the rooibos cultivation practices have evolved considerably, its first processing, which also takes place in the region of cultivation, still relies mainly on traditional methods probably tracing back to the Khoi and San populations over 300 years ago. The traditional methods consisted in harvesting the wild plants, crushing the leaves with axes and hammers, leaving them in heaps to ferment before drying in the sun. The main difference is that nowadays the methods are more mechanized and refined. Rooibos has become a South African heritage.

Various qualities of Rooibos are identified according to the production area. The type of harvesting also influences the tea-quality: hand-picked tea is finer.

Rooibos is considered to be a good substitute for black teas and coffee, not only due to its health benefits, but also due to its versatility and variety. A wide selection of flavoured Rooibos products is available. Often Rooibos is used as a basis for other herbal or fruit teas and can be found in ready-to-drink (RTD), as well as self-brewed, iced-teas. Rooibos is packaged in, and available as, loose leaves, various tea bags and powders, ready-to-drink products, cosmetics and shampoos, in tins, glass, tetra-packs, cardboard boxes, cans and bottles. New innovative product application includes green (unfermented) and organically produced Rooibos.

Wild rooibos that is harvested for consumption may be categorised into four morphological types:

- a) Suid Bokkeveld: “Veldtee”, a voluminous resprouter described in the PCA as the shrub form;
- b) Wupperthal: “Langbeentee” (Long-legged tea) or “Regoptee” (Upright tea), a re-seeder (erect form)
- c) Wupperthal: “Ranktee” or “Rankiestee” (Creeper tea), a sparse re-sprouter (prostrate form); and
- d) Biedouw Valley: “Boomtee” (Tree tea), an erect re-seeder (tree type)

2.2 The production process

According to TISA (2004) the Rooibos plant has a five-year cycle and can be harvested 3 - 4 times per cycle. During the first harvesting cycle (at 18 months), the dry yield is 150 - 300 kg/ha, for the next two seasons 300 - 600 kg and in the fifth year again 150 - 300 kg/ha. A rotational period of 3 – 4 years then follows, with the land being used for small grains such as oats, rye and triticale. Both the plant's lifespan and production capacity have reportedly decreased over the years. This is allegedly mainly due to seed selection practices and the use of the same gene material pool for half a century. The lack of advancement in this regard could have a serious impact on sustainable growth and needs attention. Production growth for the medium term would thus mainly be driven by increased geographical spread, rather than through improved cultivation techniques.

Generally, Rooibos needs only very little additional fertiliser due to the relatively low yield. As the production generally forgoes artificial irrigation, droughts have a severe impact on the establishment of the plant. The risks of dry-land Rooibos farming include rainfall at specific times of the growing cycle, correct growing requirements, and the plant's susceptibility to diseases. As the plants take 18 months to come into production and work on a cycle, the farmer needs to be able to manage cash flow.

Seedlings are planted between June and August, depending on weather conditions. The young bushes are then topped, which means the tops of the bushes are pruned off, between December and March to promote branching. The first harvest can be expected one year later. As Rooibos plant has a lifespan of four to five years, therefore, to avoid years without production, new crops are planted annually.

According to Hansen (2006) the approximate production cost over a 9-year cycle (6 year growing, 3 year rotation) is R13 000 per ha. At an average price of R12 per kilogram for dry rooibos, this means that the farmer must bring in 1,083 kg of rooibos per cycle to break-even. This is possible but drought, production landscape, market demand and supply and the exchange rate all impact on the profitability of the industry.

TISA breaks this down into the following key production statistics in 2003:

| KEY PRODUCTION DATA: | 2003 |
|---|---------------------|
| Establishment costs, excluding land (R/ha) | R1 000 – R1 600 |
| Production costs (R/kg) | R4,50 – R6,50 |
| Plants per hectare | 7 500 – 12 500 |
| Plant's current lifespan | 4 – 7 years |
| Average dry yield per hectare over plant's total lifespan | 1 500 kg – 2 000 kg |

Following production, and prior to marketing, the value chain has four main processes, namely:

- a) First level processing – wet unfermented tea into red brown tea at tea court
- b) Second level processing – pasteurisation, sieving, dust extraction etc at processing plant
- c) Third level processing – in-house packing and retail contract packing
- d) Value-adding manufacturing – instant teas, nutraceutical extracts, ice teas, cosmetics, etc

After harvesting, the Rooibos branches proceed to the tea court for the *primary processing*. The fresh Rooibos is processed into small pieces, fermented and dried. Not every farm owns

the required facilities. Those who do not possess their own equipment generally share tea courts with one or two other small farms. The drying loss is 3:1 and the average dry yield per hectare is about 300 kg (TISA, 2004). The processors, also referred to as the assembler, also accept wet (non-fermented) tea which they process on their own tea courts. Finally, the product is either bagged into sacks to be sold as bulk, or packaged in tea bags, ready for end-consumer's use.

Know-how and practices associated to the processing stage are widely shared inside the South African industry. However, specific qualifications are associated to the function of the 'tea master' who controls and monitors the first processing stage. Furthermore, rooibos farmers and processors have developed specific know-how in relation with the blending of rooibos teas from different plots and different cultivation, which are associated with their capacity to assess and manage rooibos quality. Indeed, tea from the different production areas is usually blended to meet demand and realise a consistent quality.

When exporting the product, there is another step involved, the *quality control*. By law, each consignment of Rooibos exceeding 15 kg must be controlled and approved by the *Perishable Products Export Control Board* (PPECB). The PPECB was established in 1926 and it conducts its business in terms of the Perishable Export Control Act (Act 9 of 1983). It has been assigned by the Department of Agriculture to inspect all exports from South Africa in accordance with the Agricultural Products Standards Act (Ac 119 of 1990). However, it is important to note that the statutory powers of the PPECB is limited to exports and domestically traded products do not necessarily be inspected by this body.

2.3 The history of the Rooibos industry

The discovery of *Aspalathus linearis* by European botanists dates back to as early as 1772. Rooibos tea is an indigenous herb that grows exclusively in the Northern and Western Cape provinces of South Africa, precisely in a small area located 200 km in the North of Cape Town, the Cedarberg Mountain region and around Clanwilliam and Citrusdal.

Rooibos has been used and harvested from the wild at least since the eighteen century in the Cederberg Region of South Africa. However, it was only marketed for the first time outside the Cederberg region in 1904 when Benjamin Ginsberg, a Russian immigrant, bought some of it from local South African inhabitants and sold it in Europe under the brand Eleven' O Clock. Rooibos cultivation was developed in the 1930's with the identification of the 'Nortier' cultivar. In 1948, in reaction to a crisis in the marketing of Rooibos, the Clanwilliam Tea Cooperative was established. In 1954 this Cooperative formed the basis of the Rooibos Control Board, appointed by the Minister of Agriculture. As a result quality was standardised and improved. However, the corollary was that markets were regulated and prices fixed (Rooibos Ltd, 2007) and with a volume-driven bulk sales approach, there was very little value addition or product development. Marketing efforts were predominantly focused on the local market and local consumption accounted for about 75% of annual production. This however, should be seen in the context that the Control Board, through its legal statutes, was not allowed to engage in value-addition and thus restricted to bulk sales (TISA, 2004).

Although the South African Agricultural Marketing System was only deregulated in 1997 with the aid of the Marketing of Agricultural Products Act (Act 47 of 1996), the Rooibos Control Board already voluntarily deregulated in 1993. Its assets were distributed to producer farmers who were former members of the co-operative in the form of shares in the newly formed public company, Rooibos Ltd. This brought an influx of new players onto the market, with operations expanding to the broader Cedarberg area as well as Cape Town. Snyman (2007) indicates that many farmers broke away to form their own firms with King's Products

(Pty) Ltd being the first to establish a processing plant in 1996. Whilst the impact is clearly visible on second level processing (from one pasteurisation plant to eight), it is especially in the areas of international sales and new product development that the benefits of deregulation are tangible. Since 1998, high-valued niche products such as green and organic Rooibos, ice teas, powdered extracts, new herbal blends and flavours, etc. have burst onto the market and international sales have increased with more than 300% (TISA, 2004).

2.4 The current structure of the Rooibos Industry

The turnover of the Rooibos tea industry was estimated at 180 million Rands in 2004 (corresponding to 22.5 million euros). The export market represents more or less 60% of the production against 40% for the domestic market (TISA 2004).

The production of Rooibos is clearly dominated by a small number of processors who collect and transform Rooibos, and sell it to intermediaries who market it. Rooibos export marketing and supply chain are dominated by a few leading European tea importers, and largest tea brokers in the world, which are based in Germany. These firms buy Rooibos in bulk for blending and resale to other countries. The figure below gives a schematic overview of the Rooibos supply chain.

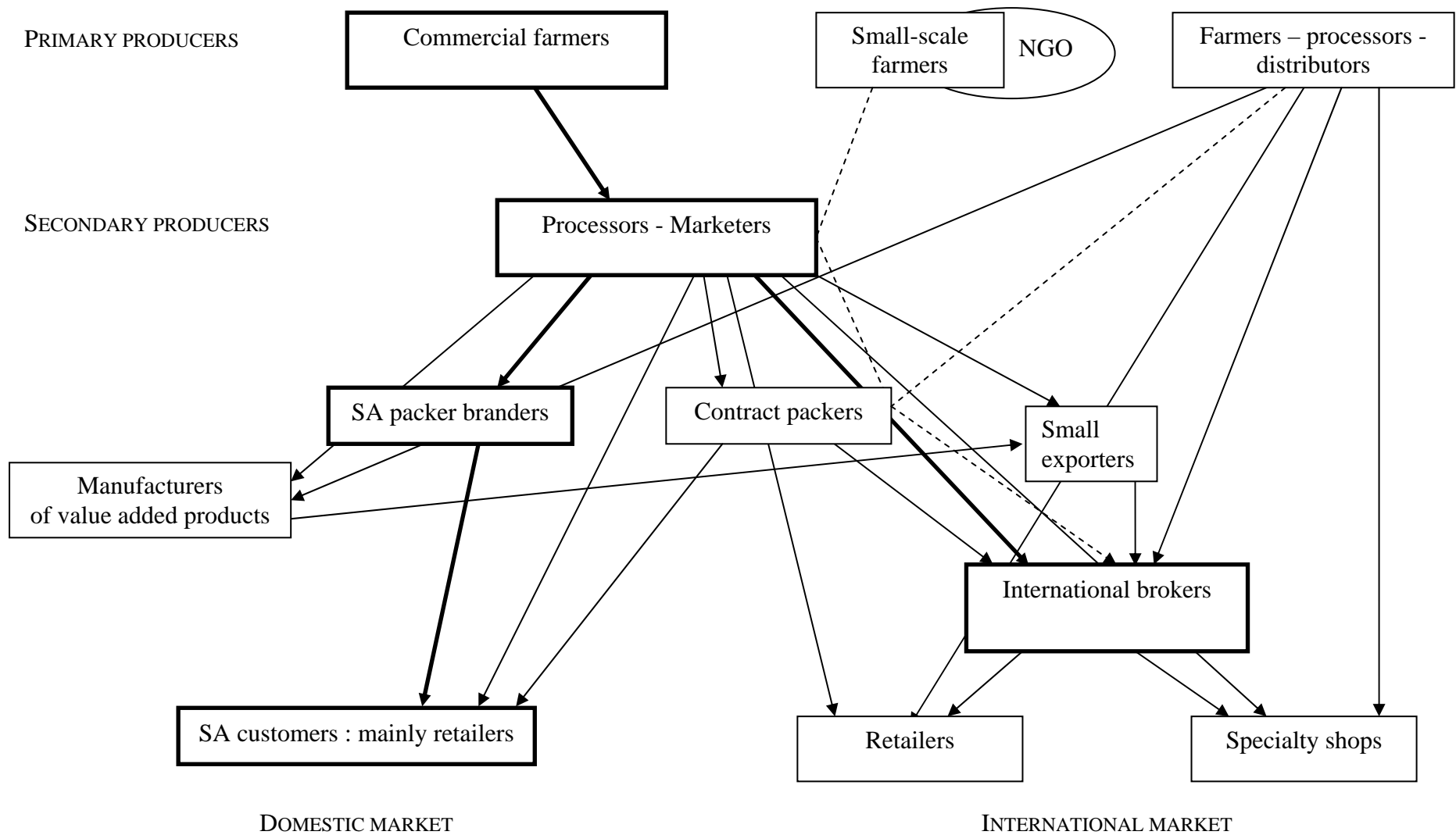
2.4.1 Farming systems and connection to processing firms

The number of producers of Rooibos ranges between 300 and 450 farmers, depending on the source being used (TISA, 2004; Hansen, 2006). Areas under cultivation ranges from a few hectares to over 5 000 hectares per farm, but these large-scale producers, are a few. Most of the commercial producers are also farming with livestock, potatoes and lucerne (alfalfa). About 40 farmers have Rooibos seedling nurseries as sideline business and some farmers are also involved in growing seedlings for other producers. An estimated 40% of all the farmers have experimented with organic production or have implemented organic production principles on some of their plantations. Nevertheless, one tends to find both organic and non-organic production on the same farms.

About two thirds of these farmers deliver their crops to one processor, Rooibos Ltd. There are currently 42 Previously Disadvantaged Individuals (PDI) farming individually with between ten and 15 of them owning shares in Rooibos Ltd. There are further two Tea Co-operatives with about 100 PDI members (+35 female producers) who are actively involved in Rooibos farming. Each of these cooperatives own 33,3% shares in a Rooibos packing facility in Cape Town (Snyman, 2007). These cooperatives have been specialising in marketing organic and fair trade rooibos for the export market.

Whilst 20% of the producers accounted for 80% of total annual production, the combined output of the PDI producers, including the two co-operatives, is estimated to be about 2.5% (225 - 250 tons), of which about 50 tons is produced by one PDI Rooibos producer (TISA, 2004).

Snyman (2007) indicates that the second biggest producer grouping is the approximate 40 farmers who are shareholders of Cape Natural Tea Products (Pty) Ltd. Largest independent producer is The Big Five Rooibos Company (Pty) Ltd with its own brand, African Dawn. The rest of the tea is being sold to other processors and buyers, also through annual contracts with a small number marketing their own teas under their own brand names (e.g. Biedouw valley).



Source: Adapted from Biénabe and Troskie (2008)

2.4.2 The main South African industry role players and other downstream agents

There are currently eight South African companies equipped with the facilities to commence with secondary processing, wherein the tea is pasteurised and sifted. This process is highly capital intensive, with very costly machinery. The minimum set-up costs for a plant with an output capacity of 250 tons per year is in the region of R750 000. Pasteurisation fees vary between R2.50 - R3/kg depending on contract volumes and agreements. The cost of transport is on average R2/kg (TISA, 2004). However, as a result of the movement of prices in the energy market as well as the potential introduction of a Provincial fuel levy, these costs may change considerably.

These companies are involved in all levels of the supply chain to a small or large extent. Together, Rooibos Limited, Khoisan Tea, Coetzee & Coetzee, Cape Natural Tea Products (CNTP), King's Products, Red T Company, Big Five Rooibos Company, and Maskam Redbush are responsible for an estimated 95% of total annual supply and sales (TISA, 2004). For that reason Snyman (2007) considers them to be the main players in the supply chain. Most of them have positioned themselves as marketers. Four of the processors have their own in-house packing facilities and also offer contract packing services, namely Rooibos Ltd, Red T Company, Khoisan Tea, and King's Products.

Each of these key players has unique competencies through which they position themselves with different service and product offerings. In particular, the Big Five Rooibos Company only sells tea produced on its own farm and thus advertises it as estate Rooibos following the wine industry pattern. Rooibos Ltd still remains the dominant players with approximately 75% market share and a very strong positioning on the domestic market. Other players such as CNTP, Khoisan Tea and Coetzee & Coetzee have diversified their marketing scope and also offer products ranging from indigenous tea blends to vanilla, raisins and other dried fruits (TISA 2004).

There also exists *packers* : companies that specialize in end-consumer packaging. The set up costs of a packing plant with a 100-ton capacity are about R1.5 million. Contract packing fees range from R20 – R30/kg and depend on the type of boxes, filter paper materials that are used (TISA, 2004). These consist of packer branders with the larger being National Brands Ltd, wholly-owned subsidiary of Anglovaal Industries and of contract packer that service local brand owners and exporters without packing facilities, as well as private label customers (e.g. supermarket brands). In addition, One new Black Economic Empowerment (BEE) Packing Plant, Fair Packers (Pty) Ltd, was recently established in Cape Town for packaging tea from PDI Co-ops for the Fair Trade market.

After packaging, distribution, both on a local and international scale, is done by roughly 25 enterprises within South Africa. Most of these enterprises are also involved in business with other natural products, ranging from Honeybush, other herbal teas and medicinal herbs to wine and cosmetics.

Snyman (2007) also indicate that there are currently three main manufacturers (Pty) Ltd's specialising in value-added products like extracts, instant powders, flavours, etc. They do not only focus on Rooibos but also products like Honeybush and various other natural products such as Sutherlandia, Buchu, Hoodia etc. In cosmetics, the market leader is Annique (Pty) Ltd, which sold the "Rooibos" name to Burke International and was central in the US case. Generally, Rooibos cosmetics, toiletries, ice teas etc are contract manufactured and only forming a small portion of suppliers' operations.

2.5 The Rooibos market

According to projections by the United Nations' Food and Agriculture Organisation (FAO) in 2000, world tea production should reach an estimated 3,4 million tons in 2010, with herbal/fruit teas for about 100 000 tons. Consumer demand for herbal, green and other health teas is likely to outstrip production and could see an upward trend in price levels. In Britain, the world's biggest tea drinker apart from Turkey, black tea sales fell from 127 million kilograms of tea bags in 1997 to 114 million kilograms in 2002, whilst sales of fruit and herbal teas rose by almost 50 percent. The hot drinks sector in the Netherlands declined by 0,5% in the 2001/2 sales period, yet the market value of tea increased by nearly 4% through the sales of herbal and fruit infusions. Even in the Germany, the world's largest importer of herbal tea products which has a mature tea market with intense competition, the tea sector grew by 10% in terms of volumes in 2002, purely through fruit and herbal teas. Rooibos is increasingly claiming its share of this growing market, with international demand surging since 2001 (see table 1 below). In 2005, total exports were 5 500 tons of which 4000 tons were exported to Germany (70%), 550 tons to the Netherlands (10%) and 400 tons to Japan (6%). Other significant export markets include the United States, Australia and the United Kingdom.

Contrary to the domestic market which has remained quite stable, the export market has seen huge growth over the past decade. And according to Gress (2004), Rooibos still has a huge market potential before reaching saturation in its main export markets. Indeed, Rooibos is generally regarded as a healthy beverage, due to its being low in tannin and being caffeine-free (Morton, 1983) and these health attributes are considered to be key assets for the continuous growth of today's competitive herbal industry (Standley et al., 2001).

As already mentioned, approximately 95% of Rooibos is exported in bulk, in loose leaf format and Rooibos export marketing is dominated by a few leading German tea importers, which are largest tea brokers in the world. These firms buy Rooibos in bulk for blending and resale it to other countries. These brokers are claimed by Snyman (2007) to benefit more financially from this uniquely South African product than the country itself by adding value in their own countries. Therefore, the German market is very price sensitive, and a commodity style exchange takes place with frequent price wars between the Rooibos exporters.

It was argued previously that primary Rooibos processing is dominated by 8 large companies with Rooibos Ltd detaining 75% of market shares, supplying about 95% of domestic consumption and between 50 and 60% of the export market. TISA (2004) estimates that Rooibos Ltd sold close to 4 000 tons of Rooibos to the local market in 2003, which amounts to a local turnover of approximately R60 million (at R15/kg). It has long-term bulk supply contracts with National Brands and Unilever Foods, who, apart from owning the leading Rooibos brands (Freshpak, Liptons, etc) with a combined market share of about 75%, also supply Rooibos to most of the supermarket chains for their house brands. Rooibos Limited further supplies Joekels Tea Packers of Durban with 15% of the Rooibos market.

However, the recent phenomenal growth in the export market was to a large extent the result of the initiatives from the smaller and more recent entrants. Four players accounted for more than 85% of annual sales volumes. After Rooibos Limited, the second largest exporter was Khoisan Tea with approximately 15%, followed by Coetzee & Coetzee with about 10% and Cape Natural Tea Products with 6% of the market share. The remaining players together supplied and sold about 1 000 tons of Rooibos. New players will find it difficult to enter the market, because many producers also have shareholding in these established companies (TISA, 2004). In addition to the eight dominant players, there are between 30 and 40 small and medium enterprises throughout the country and mainly involved in export marketing.

Examples include Healthwise Foods, Berfin, Just Rooibos and Wings Group. The majority also offer Rooibos cosmetics, other herbal teas, and natural plant products like essential oils and medicinal herbs in their marketing mix.

In Table , the sales volume and price information for Rooibos is provided. TISA (2004) argues that International demand for Rooibos has been growing by nearly 35% over the past three years alone. It is evident that the sustaining of this growth would result in serious pressures on the system.

Table 1: Sales volume and exports of Rooibos

| YEAR | TOTAL SALES | EXPORTS | DOMESTIC | PRODUCER PRICE |
|------|--------------|---------|----------|----------------|
| | VOLUME (TON) | | | R/KG |
| 1990 | 3 900 | 432 | 3 468 | R1,40 |
| 1993 | 4 200 | 760 | 3 440 | R3,25 |
| 1994 | 4 100 | 800 | 3 400 | R4,80 |
| 1995 | 4 200 | 1 350 | 2 850 | R5,50 |
| 1996 | 4 300 | 1 400 | 2 900 | R6,50 |
| 1997 | 5 100 | 1 400 | 3 600 | R3,30 |
| 1998 | 5 100 | 1 500 | 3 600 | R3,80 |
| 1999 | 5 400 | 1 800 | 3 600 | R4,80 |
| 2000 | 6 500 | 3 100 | 3 400 | R5,50 |
| 2001 | 7 530 | 3 880 | 3 650 | R6,50 |
| 2002 | 8 800 | 4 800 | 4 000 | R11,00 |
| 2003 | 1 040 | 6 400 | 4 000 | R12,00 |

Source: TISA 2004

3. THE GI PROCESS IN THE ROOIBOS INDUSTRY

3.1 The emergence of the GI initiative and the set up of the GI committee

The Rooibos case is being prepared to be ready for submission as a GI both to the South African government and to the European Union. Several factors have given rise to the development of the GI initiative. From the industry point of view, if rooibos is currently not produced anywhere else in the world, with the increased international demand for rooibos tea, some producers feel there is a threat of possible delocalisation of the production outside the country. Another more immediate threat arose with the registration of trademarks on the name rooibos by different companies in different countries. This resulted in the major legal battle in the United States (see section 1) that made Rooibos famous.

One of the results that came out of the Rooibos trademark dispute in the US was the establishment of the South African Rooibos Council (SARC) in April 2005 as a Section 21 Company. Under South African Law a Section 21 Company is a not-for-profit organisation. The vision of the SARC is “a stable, cohesive and internationally competitive Rooibos industry that will ensure future sustainability to the benefit of all stakeholders (Snyman, 2007: 6). Although it is still in its infancy, it represents the whole industry (small and commercial producers, labour, processors, etc.) and is an ideal vehicle for collective action.

One of the key strategic objectives of the SARC is now to protect the Rooibos name for the industry and to ensure that the name is not expropriated again. Previously, the efforts for

organizing and improving coordination among Rooibos producers and processors concerned mainly research aspects. However this has been evolving with the increased awareness of the need to protect their product and markets and the perceived risks of quality degradation. If interest for GIs was already present among the industry, actual discussions about it took place mainly as a result of the IPR DURAS project engagement with the industry since early 2006. This first consisted of the capacity building workshop, which was held with small-scale farmers. Then, a more general launching meeting was held the 31st of May 2006 with the whole industry to raise more awareness on GI potential for this industry, assess its interest in developing a GI and agree on mutual commitments to explore the Rooibos potential as a GI. This resulted in the appointment of a task team or committee during the Annual General Meeting of 11 October 2006 of the SARC with people representing the different role players in the SA industry. This Task Team consists out of a representative from processors, marketers, commercial farmers, emerging farmers as well as a representative from the NGO environment. It is supported by two researchers from the IPR DURAS project who facilitate the debate and provide, when asked to, information on GI related issues, as well as by a consultant from the provincial nature conservation agency, Cape Nature, in charge of implementing a Rooibos biodiversity strategy.

Following the establishment of the GI task team, several meetings were conducted and the proposal for the product specification that constitute the main piece of the Rooibos industry application for a GI to the European Union has been progressively completed. The process engaged with the industry to develop the GI allows the actors to appropriate the key dimensions of GI protection and labelling and to foresee its merits with regard to the current challenges that they are facing. It thus reinforced the industry interest into this tool. In relation with the reservation of the name, a key dimension is the role that GI could play in collective quality management and control. Indeed the industry is looking for international protection and control of quality against abuse and misuse. The sustaining increased demand and lack of quality standards on rooibos gives rise to opportunistic behaviours both from South African processors and traders - who need to create their space in a market strongly dominated by Rooibos Ltd - and from European buyers, on export tea quality. A particularly important dimension is the quantity of stick in the rooibos tea, which increases the volume but can degrade the quality and is used in defining different grades. But up to now, these grades are not perfectly shared among the industry. The subsequent risk of degradation of quality, and thus risk of loss of reputation, is perceived as an important threat by some actors. Furthermore, with the dynamics of innovation in the industry and the huge product range (not only the blend herbal teas but also cosmetics, soft drinks...), it also becomes more necessary for the commercial viability of the industry to make sure that it is rooibos that is used. With the expansion and opening of new markets, need for standardization becomes critical. But with more than 90% of the production sold in bulk and the European market being dominated by a few international tea brokers from Germany, control on overseas markets is very difficult. For this reason the development of an envelope of quality standards is a priority of the current GI initiative. Another important dimension that arose strongly with the intent to establish best practices as part of the GI specification is the biodiversity conservation one with the incorporation of biodiversity related specification as further discussed below.

Final agreement was reached regarding many points of the GI specification as described below. This was the result of a very pragmatic approach in the committee and an interesting balance in the process between not excluding farmers, being able to take advantage of new opportunities and ensuring a strong enough specification. As a result, this Task Team is close to finalising a product specification that will make provision for quality, traceability and inspection concerns. At its most recent meeting the decision was taken to apply for a

Geographic Indicator in South Africa and a local Law Firm was mandated accordingly. Indeed, agreement was reached to activate the legal proceedings to ensure appropriate local protection as a step toward EU application. It was decided to first apply for registration for a GI in South Africa under the current framework using the draft specification prepared for EU application. At the same time a letter has been sent by the industry to the National Department of Trade and Industry to inform about the industry will to register a GI in SA and in the EU and to ask for a more appropriate legal framework.

3.2 Developing a product description for Rooibos

It is important that the SARC has fully accepted ownership of Rooibos as a potential GI, and the whole case study with its potential future registration as a GI is being driven by this body. As already mentioned, at the centre of the Rooibos as a GI is the product specification and the Industry is in the process of finalising this specification. It is important to note that this specification is based on consensus on the one hand, but also on the need for good scientific evidence for each of the elements. The first part of the specification is the delimitation of the areas and the industry has initially identified five conditions that need to exist for the successful production of Rooibos. These are:

- a) It must in the winter rainfall area.
- b) The substrate must be a derivative of Table Mountain Sandstone.
- c) It must be deep, well drained sandy soils.
- d) The ph of the soil must be below 7.
- e) It must be in the Fynbos biome.

By using these criteria and the data in Schulze (1997) for winter rainfall area, SIRI (1987) for soil and substrate data and Mucina and Rutherford (2006) to define the Fynbos biome the delineation as indicated in Figure 1 (see annexure 3) was identified by Wallace (2007). This specific aspect followed the work from a Geographical Information System specialist from the Western Cape Department of Agriculture.

During one of the regular meetings of the GI Committee this map was submitted for discussion. However, the Committee had three concerns with the map. In the first instance the committee was concerned by the fragmentation of the area and the subsequent administrative burden that would be placed on any implementation agent. The second concern was the fact that the map actually excluded certain known Rooibos production areas at the mouth of the Olifantsrivier. The third concern, voiced by the representatives of Cape Nature, was the fact that the protected areas, (i.e. the Nature Reserve at Cape Point) were included in the map. For these reasons the criteria to be used was refined to the following:

- a) It must in the winter rainfall area of South Africa.
- b) It must be in the Fynbos biome.
- c) Protected areas must be excluded.
- d) The resulting area must be calibrated with the area where Rooibos occurs naturally.

The same data sources were used as in the previous round with the addition of data provided by Paryze (2007) to identify the natural occurrence of Rooibos in the wild (Wallace, 2007). The resulting map is provided in Figure 2 (see annexure 4) and it was generally accepted by the Committee as a good representation of the actual and potentially feasible Rooibos production area.

The second leg of the product specification is production practices. The main elements of the agreed upon production practices include:

- a) Production must take place in the delimited area.
- b) Biodiversity standards are being developed. The reason for this is that due to wild harvesting, production expansion and changes in the crop patterns, biodiversity and the well being of natural resources are under threat.
- c) It must be produced under dryland conditions.
- d) However, irrigation is allowed on the condition that no irrigation takes place within the two months prior or during harvesting.

The third leg of the product specification is the harvesting standards. Only two important elements were identified, namely:

- a) It must be annually harvested.
- b) At least 20% of the leaves must be retained.

Probably the most important part of the product specification, and also the part containing the most sensitive elements, is the processing part of Rooibos. The main elements include:

- a) It must be delivered to the tea court within a specified time.
- b) The green material must be cut to a specified length.
- c) It must be placed in a specified manner in the sun and wetted to aid fermentation.
- d) The leaves must be bruised for fermentation.
- e) No catalysts may be added to the product in order to facilitate fermentation.
- f) Odour and colour codes have been agreed upon for the fermented product.
- g) Following the fermentation the product must be spread in the sun for drying. Due to the specific harsh conditions in this area, the exposure to the sun provides a further link to the specific delimited area.
- h) It must be dried in the sun to a moisture content of less than 10%.
- i) It must be stored in a cool, dry place.
- j) All health regulations must be adhered to.
- k) The tea court itself must be in the delimited area.

For addressing the key questions related to quality definition, measurement and control, consultation was organized with all the Rooibos processors and their quality managers and is still under way.

With the exception of the delimited area, a separate and distinct product specification has been developed for Rooibos as a green tea. Certain key elements of the product specification have not been completed yet. These include the social elements of the specification as well as how inspection and certification will take place. As soon as these have been agreed upon, a more detailed cost/benefit analysis can be completed.

In the case of Estate Rooibos, the *Certifier / SARC* may register pieces of land or portions of pieces of land under particular names as units for the production of Estate Rooibos and also amend or withdraw such registrations on the condition that:

- a) Conditions may be imposed.
- b) The application shall be done in writing by the interested party.
- c) The appropriate fees shall be paid.
- d) Apart from roads, railways, rivers and similar divisions approved by the *Certifier / SARC*, all pieces of land must adjoin each other.
- e) The land is farmed as a single unit.
- f) There is a single person (natural or legal) in charge of the unit.
- g) The product will comply with all other particulars of this product specification.

- h) The drying facility is situated on, or adjoining to, the registered land.
- i) The person in charge can provide adequate proof of compliance to these conditions if requested so by the *Certifier / SARC*.
- j) The *Certifier / SARC* may withdraw the registration if non-compliance to the conditions is suspected.

Leased land may be included in the area of production on the condition that:

- a) The same conditions as above apply.
- b) It has been farmed by the person in charge for at least one production cycle.

Additionally acquired land may be included in the area of production on the condition that:

- a) The same conditions as above apply.
- b) It has been farmed by the person in charge for at least one production cycle.

Only Rooibos produced on land that complies to these conditions may be marketed as “Estate Rooibos”.

Although certain questions and challenges still remain in the Industry, it is clear that there is a momentum in the Industry for the valorisation and protection of Rooibos. This momentum is not only at producer level, but also on an institutional and consumer level. The industry is already in the process of seeking protection at domestic level. It is preparing its application for registering the name Rooibos in South Africa as a collective or as a certification trademark in the name of the SARC with a view to seeking international registration and in particular European Union, once the product specification is completed. For more information regarding the legal dimension, you are referred to the legal document (see section 4 point 5).

3.3 Biodiversity and Rooibos

The intensification of the production practices and expansion of the production area constitute a strong stake for the Rooibos industry from an environmental point of view especially as a threat to biodiversity. Thus, in addition to the promotion of biodiversity best practices per se as part of Cape Nature activities, biodiversity related elements have been inserted into the development of the GI process to reinforce the biodiversity strategy. The definition of biodiversity related specification followed different steps. The Cape Nature consultant compiled a list of biodiversity relevant issues related to Rooibos practices that were consulted with samples of producers of the different production areas. The result of this consultative process was then extensively debated during a task team meeting and the most relevant biodiversity related practices were incorporated into the product specification for Rooibos.

3.4 Rooibos GI strategy prospects

The advanced level of quality differentiation inside the industry, which has up to now been managed through individual or restricted collective strategies, can be nicely complemented by a GI collective qualification. Future prospects could be to consider the GI as an umbrella under which could be defined different specifications to account for the different qualities associated with different ‘terroirs’ and processes of production. This could reinforce small-scale farmers' communities, which have built a unique differentiation strategy and market access for their production based on fair trade but which could soon face competition in their niche due to Rooibos plantation fair trade certification. The uniqueness of their production, which does not only stem from their social attributes but also from their settlement in one of the best 'terroir' for Rooibos production could be reinforced through a GI sub specification. Their position in the market could then be strengthened. However it is worth mentioning that

this has not yet been widely discussed inside the industry which is first concentrating on properly establishing a GI for Rooibos.

4. CONCLUSION

It is worth pointing out in the conclusion that a key driver for the interest of the Rooibos industry in developing a GI strategy is its export orientation and in particular the importance of the European market in which GIs are both widely recognised and enforced within a powerful framework. Thus the potential effects of GI implementation are seen as significant. However, given international market development of Rooibos outside Europe and the uncertainty regarding the evolution of GI negotiations at international level, actual effects of GI implementation could appear to be quite uncertain.

The following table taken from Biénabe and Troskie (2008) discusses the different possible outcomes of a GI strategy for the Rooibos industry according to different scenarios regarding the GI regime at international level. The three scenarios at international level considered are the one that have been proposed by Gilles Allaire and Bertil Sylvander as part of the SINER-GI project analysis and they consist first of a convergence scenario whereby national GI legislations are harmonised at international level and provide for strong protection for all agricultural products. The divergence scenario refers to the case where no agreement can be reached between the advocates and the opponents to a strong enforcement of GIs at international level. The plurality scenario consists of regional agreements regarding GI recognition whereby different understandings and ways of enforcing GIs co-exist.

Table 2: Potential responses of the Rooibos Industry to various scenarios of the potential outcome of the GI regime at International level.

| | CONVERGENCE | DIVERGENCE | PLURALITY |
|-----------------------------------|---|--|--|
| How is it sustaining the scenario | <ul style="list-style-type: none"> • Flagship case for South Africa's involvement in GI debate • Rooibos forms the benchmark for the development of a <i>sui generis</i> system. | <ul style="list-style-type: none"> • No value in the GI – the sceptics are convinced right. • Other IP tools becoming more important and supported | <ul style="list-style-type: none"> • The importance of a quality standard coming to the fore. • Range of IP tools being developed and supported |
| Power | <ul style="list-style-type: none"> • Power to the land owners • Producers taking the initiative. • New marketing opportunities may develop • Proliferation of producer initiatives. • Entrance of GI into new EU markets? • A credible GI would also give power to the consumer | <ul style="list-style-type: none"> • Power close to the market. • Power to specific land owners due to altruistic behaviour of certain actors. • Power in the hands of the owners of the quality standards. • Proliferation of quality standards by private actors. • Leading to the debasement of quality standards. • Bulk exports continue. | <ul style="list-style-type: none"> • Power close to the market • Power to specific land owners due to altruistic behaviour of certain actors • Possible new entrance of GI into important markets. • Need to manage the establishment of quality standards (meta-norms). |
| GI trajectory | <ul style="list-style-type: none"> • Can lead to a Rooibos GI • Flagship for national initiative. • Example for other products • Multi-stakeholder initiatives. | <ul style="list-style-type: none"> • Weak or absent GI • Proliferation of trademarks. • Proliferation of production • Consumer confusion? | <ul style="list-style-type: none"> • Domestic registration • Registration abroad according to the available “shopping basket” of IP tools |
| Impact on sustainable development | <ul style="list-style-type: none"> • Ownership of Rooibos land becomes important. • Increased importance of Land Reform • Value adding at local level | <ul style="list-style-type: none"> • Ownership of trademarks more important. • Land not that important, BEE rather in the supply chain. • Value adding taking place abroad. | <ul style="list-style-type: none"> • Who owns the GI / Trademark? • Rent extraction at GI / Trademark level. • Potential for limited value adding for export at local level. |

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C. HONEYBUSH TEA CASE STUDY⁴

1. INTRODUCTION

Within the South African context the Honeybush Industry is representative of a certain group of products. South Africa, and specifically the Winter Rainfall area of the country, is one of the eight floral kingdoms of the world with a range of unique species, of which Honeybush is one, that will only be found in this part of the world. At the same time it is an industry that is in its infancy with a very limited number of producers making it more representative of an infant industry than the more commercialised Rooibos Industry. Yet, it is also being produced over a wide range of ecological niches that would lead one to suspect that regional differences would exist in terms of taste, aroma and quality. Another very common feature in these types of indigenous products is the coexistence between historical uses by the indigenous population combined with the more recent economic commercialisation that is taking place. In other words, the indigenous knowledge can form a bridge between the various cultures. On the other side of the coin is the fact that the Industry boasts a representative organisation is fairly unique given the small number of producers and the wide geographic area it covers.

For a combination of these reasons the Honeybush Industry has been selected as a case study in this project. The rest of this report will consist out of two major parts. In the first part of the report the emphasis will be on describing the Honeybush Industry from the perspective that made it of interest to the project team. This will be done by highlighting the features of the product, providing a historical perspective, describing the production process describing the structure of the Industry and providing an overview of the market for the product. The second major part of the report will be to provide a short summary of the GI process to date as well as the main elements that may be included in a product description for Honeybush.

2. THE HONEYBUSH CASE STUDY

2.1. The product features and specificity.

Honeybush tea is an indigenous herbal beverage similar to Rooibos tea, produced from the *Cyclopia* species found in the unique South African Fynbos biome. It grows mainly in the coastal and mountainous areas of the Western Cape and in the wetter Eastern Cape mountain areas (from the Baviaanskloof through to the Bredasdorp area). It has the particularity to be mainly wild harvested (more than 80%), with cultivation that only started a decade ago. It is mainly sold as an herbal tea –pure or in blends–, but extracts are also produced for the food and beverage industry to add to various products such as ready-to-drink beverages, fruit juice mixtures and sweets as well as for the cosmetic industry. A flavour extract is also marketed. As Rooibos, it is known at least locally for its health property (anti-oxidant, anti-allergic, anti-mutagenic and anti-cancer properties).

Honeybush has recently become a commercial crop, with a production of 221 tons in 2003 (DTI, 2004). More recently the production varies between 350 and 500 tons of processed tea per year. It follows that this is still a very small industry. However several factors indicate its

⁴ Estelle Biénabe, Dirk Troskie & Phumlani Mentani

potential for growth: a growing local and overseas demand, interest from farmers for Honeybush cultivation and interest from different public institutions to support the development of the industry.

Twenty-three species of *Cyclopia*, growing in different areas have been identified. Of these, mainly three are used commercially: *C. Intermedia*, *C. Subternata* and *C. Genestoïdes*. *C. maculate* and *C. sessiliflora* are also used but to much lesser extent. *C. Intermedia* grow mainly in the Tsitsikamma, Langkloof and Kouga area and are the main wild harvested species. *C. Genestoïdes* is found in the coastal, sandy areas from the West coast to Mossel Bay and *C. Subternata* grows mainly in the Tsitsikamma and in the Langkloof area in milder micro-climatic conditions when compared to *C. Intermedia*, and in the Outeniqua and Langeberg mountains. These two last species are the main cultivated species.

The Honeybush industry is mainly located in the Langkloof region in the Eastern and Western Cape with most of the wild tea harvested in the Tsitsikamma and Kouga mountain ranges. It is estimated that there are approximately 30 000 ha of Fynbos, including the Tsitsikamma, Kouga, Baviaans, Langeberg and Swartberg mountain ranges, where wild Honeybush grows sporadically (Joubert and Joubert, 2006). A recent survey by the Western Cape Department of Agriculture has provided an accurate overview of the occurrence of the three commercially produced Honeybush species in the Western Cape (Newman, 2007). This data is presented in Figure 1.

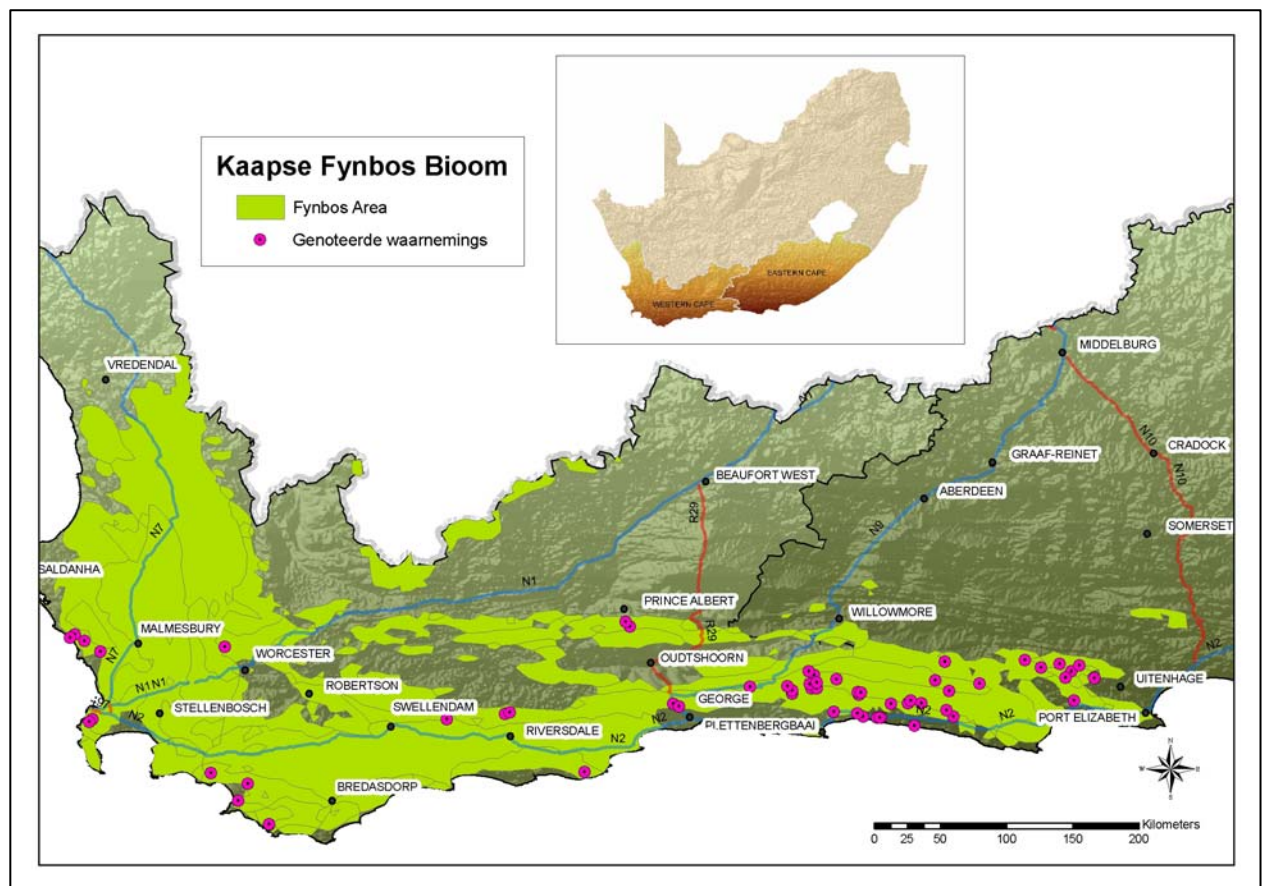


Figure 1: Occurrence of selected Honeybush species in the wild
Source: Newman (2007)

In the CSP it is estimated that there are approximately 4 500 hectares of land that is suitable for the production of Honeybush tea. This area runs in a belt from Montague, through the Little Karoo and to Kareedouw in the Eastern Cape. Of this area there are currently about 230 hectares being cultivated with predominantly *C. Subternata* and *C. Genestoïdes* being used. There are currently 8 commercial growers of Honeybush tea and they contribute 20% to the annual production. It is interesting to note that some of these areas under cultivation are being owned and managed by the Haarlem and Ericaville communities. In 2004 these communities had respectively 10 and 5 hectares under cultivation and, with financial support from the Department of Economic Affairs and Tourism of the Western Cape Province, they expected to increase it to approximately 35 and 15 hectares under cultivation (DTI, 2004). The main production areas are being provided in Figure 2 and the distribution of species used for commercial purposes in Figure 3.



Figure 2: Map of the main agro-ecological zones of Honeybush production.

Source: Blanchard and Biénabe (2007)

The highest concentration of processors is located in the Langkloof region or nearby, where Honeybush tea has been intensively harvested for several centuries in the mountain areas of the Kouga, Bavienskloof and Tsitsikamma range. Processors located in the coastal region and in Langeberg mountain range procure wild Honeybush tea from Kouga and Tsitsikamma. The processing plants are generally located on the farm or home property of the owner. Their location is not reasoned according to proximity from the suppliers.

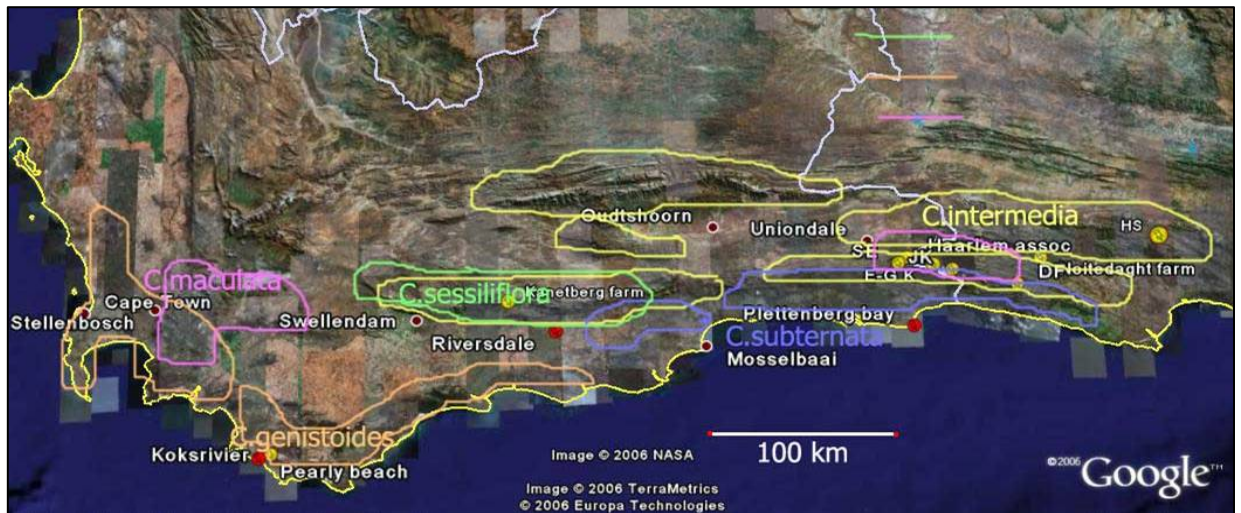


Figure 3: Map of the usual commercial occurrence of the different Honeybush species.

Source: Blanchard and Biénabe (2007)

There are no specific place-names attached to the Honeybush (except for the Heidelberg tea called after the name of a mountain but this specific tea is not harvested any more). However the use of Honeybush as an herbal tea used to be localized with different names attached to the different most used species according to where they grow: *C. Intermedia* is known as ‘berg tee’ in Afrikaans or mountain tea; *C. Subternata* is known as ‘vlei tee’ in Afrikaans or valley tea, and *C. Genestoides* as ‘kustee’ in Afrikaans or coastal tea. There also exist locally different reputations attached to the ‘berg tee’ which used to be the more widely harvested according to where it comes from. Tea coming from Kouga is more well-known than the one coming from Tsitsikamma.

During the International Workshop held as part of the Duras Project an interesting discussion took place around the potential registration of a GI linked to a product rather than a geographic location. Although the discussion was triggered by Rooibos as a potential registered GI in the EU, the discussion was extended to include other uniquely South African products. It was maintained that, due to the fact that Rooibos is a uniquely and descriptive Afrikaans name, it may be accepted as a GI while “Redbush”, although having the same literal meaning, would be too generic and intrusive to qualify. It follows that “Heuningbos” would probably have a better chance of being registered than would be “Honeybush” (Fernandez-Martos, 2007).

2.2 The history of the Honeybush industry.

The Honeybush plant was first noted in botanical literature in 1705 (Joubert and Joubert, 2006), at which time it was believed that the Khoisan tribes of South Africa gathered the plant from the wild for its sweet flavour and soothing properties. The first documented medicinal use traces back to 1830 when it was used as a restorative. This was followed by the first chemical and anatomical study on the product in 1881 and it was found that there is no caffeine present in this herbal drink (SAHTA, 2007). Honeybush tea use forms part of the local culture of both the coloured community and the Afrikaner community.

Up to 1960’s, the tea was processed by local communities, notably the Haarlem community, in the mountains, where it was harvested. In addition to being directly consumed, the

processed tea was sold to different buyers and middle men, in Haarlem or in Langkloof, who were then procuring prisons as well as school hostels and hospitals. The Honeybush tea was cheaper than the black tea, and was used as the substitute for it. During the 1950's, the tea was also sold to fabrics to be used as a colorant for leather. Some large land owners were also processing tea mostly for own consumption. The first packaging of tea was done in the 1960's under the name "Caspa Cyclopia Tea". From the 1970's, the raw plants harvested by the communities were brought back to the village where the tea was processed. Up to the 1980's, some people were still processing the tea in small amount for own consumption, and were cutting it manually by axes. But demand and production significantly decreased until the late 1990's. Local consumption was driven down among others by a negative image that became associated with the tea for being a cheap tea consumed by those that could not afford buying Rooibos or black tea, especially under the apartheid time (Blanchard and Biénabe, 2007).

The first studies on cultivation and nursery practices were only done during 1993 at the National Botanical Institute at Kirstenbosch. . They were followed by investigation on controlled processing and the establishment of guidelines for processing by the Agricultural Research Council (ARC) (Joubert and Joubert, 2007). Blanchard and Biénabe (2007) report that the first harvest from cultivation was done during 1996. Triggered and/or fostered by researchers (e.g. information days held to create interest from prospective role players), commercial as well as small-scale cultivation production started in 1998.

Despite a long history of production by indigenous people, the tea was only popularized in the late 1990's with the advent of improved technology as well as interest from international tea brokers.

2.3 The production process.

It is important to note that a large part of the Honeybush crop is being harvested in the wild. C. Intermedia, which are according the DTI (2004) the most popular export tea, are also predominantly harvested in the wild. According to Blanchard and Biénabe (2007) wild harvesting was traditionally undertaken by small harvesting groups from the communities on large-scale farms where important quantities of Honeybush grow in the wild. These harvesters were allowed by the farmers to harvest the Honeybush on their land either in exchange of a share of the benefits or fixed amount. Some owners were even allowing wild harvesting from the communities for free as a kind of support to resource poor communities. Honeybush was at that stage not considered as a proper commercial crop. Wild harvesters would usually come back to harvest on the same farms after some time. The extent of the practices depended on the level of the demand. When, in the late 1990's, demand for Honeybush tea increased significantly, new teams of wild harvesters were formed. These small harvesting groups consist of self employed wild harvesting teams – usually coloured people with own/rented vehicle and 3 – 5 accomplices. It was estimated that there were 150 low-skilled people self employed and permanently busy with Honeybush harvesting (about 30 picking teams). Currently some of the groups are still operating but others are not any longer. Indeed, some of the large scale farmers or other individuals outside the communities got attracted by the wild harvesting activity and have been competing with these groups by organizing their own team either with their farm workers or by contracting people from the communities.

In some places (especially in the Langkloof area where the Haarlem community is located) that were exploited for a long time, it is said that wild Honeybush has been at least partly exhausted, rendering wild harvesting non profitable or too difficult to be done. However, no

scientific study has been carried out on natural resource distribution and actual availability. Therefore, it is difficult to know if there is a real depletion of natural stocks of Honeybush tea that can influence the actual supply. According to statements of processors in 2006, there would be no real resource diminution, except in the Langkloof (Blanchard and Biénabe, 2007).

SAHTA (2007) reports that the main species used for cultivating Honeybush is *C Subternata* and *C Genestoïdes* with cultivation currently being limited to the Overberg and the Langkloof. *C Intermedia*, in turn, seem to be very difficult to cultivate due to the fact that it cannot be harvested every year. It is calculated that the cost of establishing a hectare of Honeybush ranges between R10 000 and R20 000 with yields varying between 3 and 15 tons per hectare. This is significantly higher than the yields of generally less than 2 tons per hectare that is experienced in the Rooibos Industry. Producer prices ranges between R2 and R3 per kg.

Honeybush can be cultivated from either seeds or cuttings. It prefers well drained, sandy soils with a low pH and phosphorus content. The soil should also be free of nematodes. The most appropriate time to establish the plants is during winter and before August. Due to the fact that this is a fairly new and small industry, very little fertilisation, irrigation and pest management information is available. Almost more important is the fact that the smallness of the Industry prevents the registration of chemicals. The result is that cultivation practices tend to migrate towards organic principles (SAHTA, 2007).

In the case of species such as *C Genestoïdes* and *C Intermedia* harvesting can start about two to three years after planting. In the case of *C Subternata* it can start within one to two years. With the exception of *C Intermedia*, Honeybush can annually be harvested. The optimum harvesting time as well as method seems to depend on the type of Honeybush as well as the locality. *C Genestoïdes* and *C Intermedia* can be harvested during from November to March by cutting it down to the ground level. *C Subternata* should be harvested during the early winter by cutting it at about 30 to 50 cm above the ground level (SAHTA, 2007).

Processing entails shredding of the fresh shoots, fermentation or oxidation as no micro-organisms are involved, drying, sieving and bulk packaging. Fermentation is the process required for oxidative and other chemical changes to take place in the plant material, resulting in the development of the dark, brown leaf colour, red-brown infusion and characteristic sweet flavour. Traditionally, the tea was cut manually by axes. Nowadays, Honeybush tea processors cut the tea either with a fodder cutter or with a tobacco machine (guillotine type). It enables to produce a finer tea, quicker to brew (Blanchard and Biénabe, 2007).

The traditional processing method that consisted of a traditional heap fermentation process has also been replaced by a high temperature fermentation process (batch rotary fermentation) to allow for more control over the production processes and face export regulations that were established in 2001. The duration of the oxidation process varies between 18 and 72 hours, depending on the raw material used (e.g. species) and on temperature. It is checked according to appearance (especially colour) and smelt. A window in the drum enables to take a sample during the process. A specific know-how is attached to the assessment of the duration of the oxidation process. After fermentation the tea is traditionally sun-dried, but it can also be dried in the rotary unit. After drying, the tea is sieved into different size categories, ranging from a coarse cut to dust (Biénabe, 2007).

2.4 The current structure of the Honeybush Industry.

As depicted in Figure 4, the Honeybush supply chain consists of wild harvesting and commercial cultivation; first level processing (i.e. drying, cutting, fermentation); second level processing / refining (steam sterilization, blending, etc); value-adding and manufacturing (including product development) as well as marketing and sales. Some role players are specialized in one of the steps while others are integrating different segments of the supply chain. One of the role players (the Melmont company), which has been operating in the industry for decades, is managing activities from the wild harvesting process undertaken on the farm to the packaging and marketing of the product both in local and export markets.

In addition to the self employed harvesting teams (a PDI with 3 to 5 supporters) there are a number of commercial farms involved. However, these operations usually are not predominantly Honeybush producers, but actually fruit or wild flower operations. It is worth to mention the Mooi Uitsig Trust, a female farm worker equity scheme near Louterwater. There are two major community based farming operations. The one is the Ericaville Farming Trust and the other the Haarlem Honeybush Association (NAMC, 2006). According to the ARC (2008) there are currently 10 commercial production operations who contribute 30 percent to the total annual production.

On the processing side there are seven role-players. Two of these are limited companies (Honeybush Natural Products and Cape Honeybush Teas) and these two represents 66% of the processed Honeybush market. There are also two closed companies, two single owner operations and one trust involved in processing. Just one limited company is involved in refining Honeybush tea (NAMC, 2006)

In terms of the employment opportunities in the Industry the claims differs significantly. NAMC (2006) argues that there are about 150 low-skilled individuals in wild harvesting with a further 200 partially or fully employed in cultivated employment and a further 65 in processing. DTI (2004) puts the estimation at about 780 people directly involved in the Honeybush Industry with the potential to double its workforce in the near future.

The South African Honeybush Producers Association (SAHPA) was established in 1999 following facilitation by the Agricultural Research Council (ARC). In 2002 SAHPA's name was changed to the South African Honeybush Tea Association (SAHTA). It is a not for profit organisation (According to the NAMC, 2006 it is a Section 21 Company). The Board consists out of 12 members and is elected from producers, processors and marketers of Honeybush tea. Its stated objectives focuses very much on production-side issues, but also includes promotion of the industry, information sharing as well as supporting its own administrative functionality.

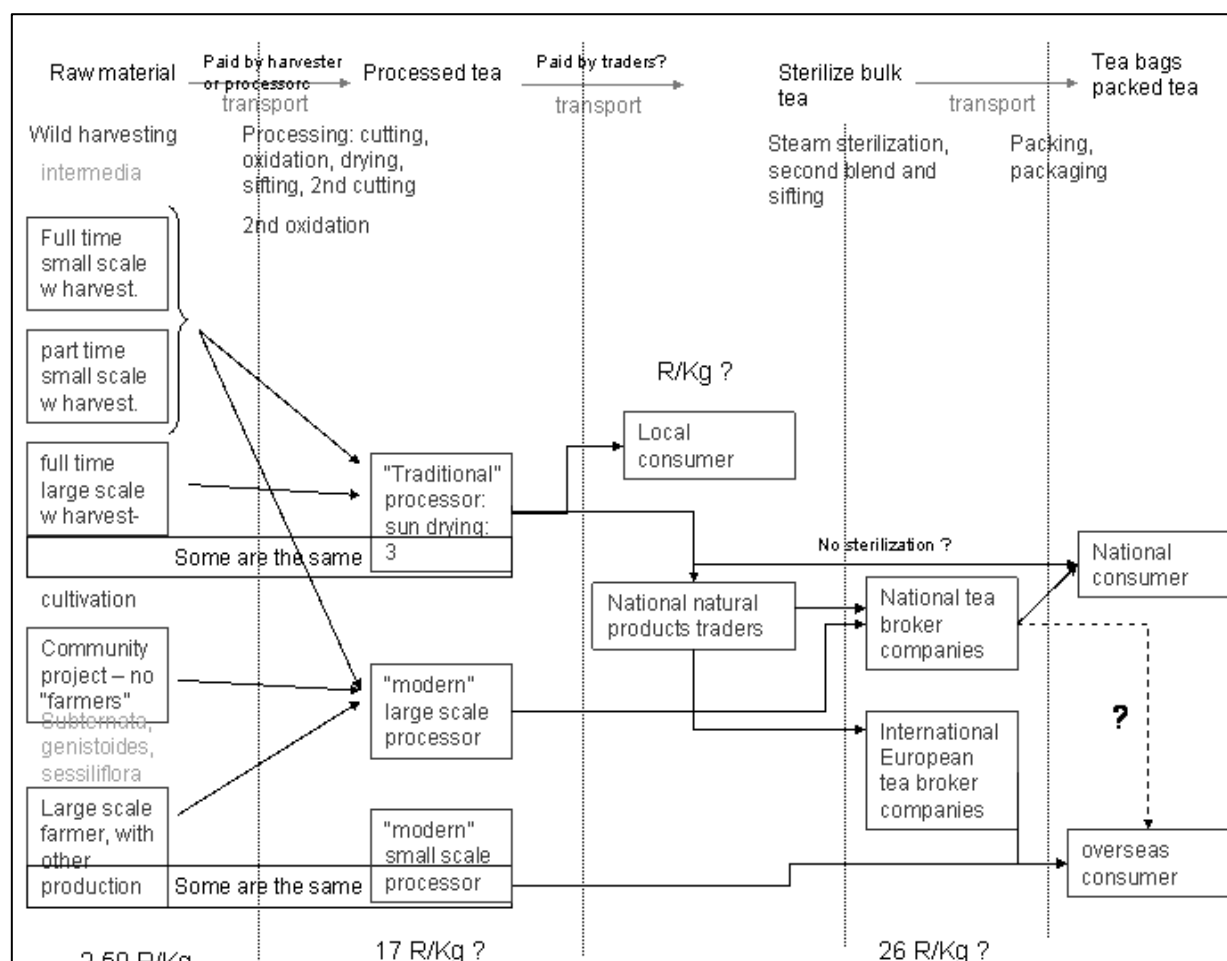


Figure 4: Schematic representation of the structure of the Honeybush Industry.

Source: Blanchard and Biénabe (2007)

Due to pressures in the environment the SAHTA is currently in a process of re-inventing itself. Some of the pressures that led to this decision include:

- The need for growth in the industry.
- BEE involvement
- More previously disadvantaged farmers as growers.
- Promotion and harvesting of Honeybush.
- The sustainability of current harvesting practices.
- Fears of usurpation of the plant material and its intellectual property.

To this end a Strategic planning workshop was held on 29 May 2007 and it was agreed by the participants that some of the issues that needed attention were:

- Guidelines for good practice (especially for wild harvested Honeybush).
- A product description (what is Honeybush). This is necessary due to the substantive variance in the quality of the product, not only between producers, but also between batches of the same producer.
- Understanding the dynamics between bulk and packed. Due to the fact that close to 90% of Honeybush are being exported in bulk, this dynamics need to be investigated in order to create a base for the long-term future of the Industry.
- Understanding the role of the tea merchants.
- Analysing the differences between the markets for the different species. Due to the fact that there are differences in taste between the various species, the trend has been

to blend species. However, it may be to the industry's advantage to rather recognise these differences and to build on it.

This Strategic plan, associated with the new structure of the SAHTA, has been accepted at its Annual General Meeting on 25 July 2007. However, it seems as if some of the members have since resigned and a special meeting of members has been scheduled for 4 June 2008.

2.5 The Honeybush market

Since the new start of the industry in the late 90's, Honeybush tea is mainly sold on the export market as an herbal tea. Export sales represent between 85 and 90% of all production volumes (including wild harvested supply). Honeybush is exported as conventional, organic (14,5% of total exports for 2005 according to ARC (2008), originating from both wild harvested in cultivated tea) and green tea (recent and small market segment: 4,6%). It is also to be exported as fair trade by the Ericaville community in the near future. Most of the tea is exported in bulk and repackaged under various brand names. According to DTI (2004) the result of this is the value of the 52 tons consumed domestically is approximately R7,6 million, the value of the 169 tons exported in 2003 was only R4,4 million. This provides a clear argument for increased domestic value adding in order to capture a larger share of the economic rent in local communities.

As shown in Table 1, since 1999 when export started, export sales have been growing significantly with a jump in 2005 mostly driven by orders from Germany that may indicate that one or more leading firms in Europe's tea industry are planning to push Honeybush (Neven et al., 2005).

Table 1: Export of Honeybush Tea over the period 1999 to 2005.

| YEAR | Export (tons) |
|-------------|----------------------|
| 1999 | 50 |
| 2000 | 100 |
| 2001 | 60 |
| 2002 | 156 |
| 2003 | 163 |
| 2004 | 100 |
| 2005 | 300 |

Source: SAHTA (2007)

An increasing number of established international tea brands like Twinings, Celestial Seasonings, Lipton, Stash, etc have introduced Honeybush or blends in their product basket. The largest export customers of Rooibos are also observed to be the existing and possible future customers for Honeybush and these include Germany, Japan, UK, and Switzerland where health drinks are particularly sought after (Matoti, 2003). Germany is by far the major export market for conventional Honeybush, whereas organic Honeybush tea is mainly exported to the United States (See Table 2). Although the import volume into the US is still small, this market has great potential (Neven et al., 2005).

Even if local demand accounts for 10 to 15% of the annual production, sales on the domestic market have been steadily growing from 5 tons in 2001 to between 15 and 40 tons in 2005. They have evolved from farm stalls and health shops to national supermarket level, with the

entrance in the market of leading tea brand owners like National Brands, Unilever Foods SA and Vital Health Foods with Honeybush or blends. Honeybush sales operate in the specialty tea segment of the retail market. Woolworths and Spar, two of the four major retail groups in South Africa started to introduce Honeybush under private labels. Honeybush has benefited from technological advances in the Rooibos subsector with products such as green (unfermented) Honeybush, extracts, liqueurs, and jams, etc. to expand market opportunities. DTI (2004) is also full of confidence that the Honeybush Industry can emulate the Rooibos Industry within the next 20 years and grow to an industry with an annual domestic consumption of 4 500 tons and an export segment of 6 500 tons. This source also argues that, in order to maintain the wild Honeybush resources, 90 percent of this production will need to be cultivated.

Table 2: The main export markets for Honeybush Tea: percentage distribution in 2005.

| Country | Conventional | Organic | Green Tea | Total |
|-------------------------|--------------|--------------|-------------|---------------|
| Germany | 58,40 | 1,94 | 3,58 | 63,92 |
| United State of America | 13,08 | 7,44 | 1,04 | 21,56 |
| Netherlands | 4,47 | 0 | 0 | 4,47 |
| Australia | 0,01 | 2,82 | 0 | 2,83 |
| Canada | 0,65 | 1,37 | 0 | 2,02 |
| United Kingdom | 1,75 | 0 | 0 | 1,75 |
| South Korea | 0,72 | 0 | 0 | 0,72 |
| Norway | 0 | 0,66 | 0 | 0,66 |
| Japan | 0,34 | 0,31 | 0 | 0,65 |
| Singapore | 0,39 | 0 | 0 | 0,39 |
| Taiwan | 0,25 | 0 | 0 | 0,25 |
| Sri Lanka | 0,13 | 0 | 0 | 0,13 |
| China | 0,13 | 0 | 0 | 0,13 |
| France | 0,02 | 0 | 0 | 0,02 |
| Switzerland | 0,03 | 0 | 0 | 0,03 |
| Denmark | 0,01 | 0 | 0 | 0,01 |
| Total | 80,84 | 14,54 | 4.62 | 100,00 |

Source: SAHTA (2007)

Currently the global demand for Honeybush is greater than the supply (ARC, 2008). Regarding prospects for the future, at least some actors in the industry are putting the stress on investigating and promoting the health properties of the Honeybush given their attractiveness both on the export and domestic markets. Other actors are also pointing out the potential benefits from increased international social consciousness towards ethical products (Fair Trade). One of the communities has been offered by a German tea trader to get Fair trade certification for its Honeybush.

3 THE GI PROCESS IN THE HONEYBUSH INDUSTRY

The emergence of the GI initiative and the set up of the GI committee

The concept of a GI was not unknown to the Honeybush Industry when the call for unique Southern African products was launched late in 2005. At that stage the Honeybush Industry already formed one of the case studies of the Four Province Project and Grant included this industry as one of the case studies in her research project. It was found that, different than

Klein Karoo Ostrich, Honeybush has a strong potential as a GI. This could be attributed to the strong link between the indigenous people and the indigenous product (Grant, 2005).

Partly as a result of the research by Grant as well as a meeting between Mr Nico Malan (then the Chairperson of SAHTA) and Dirk Troskie on 3 November 2005, SAHTA nominated the Honeybush Industry as a case study to be investigated by the Duras Project. The Intellectual Property Capacity Building Workshop with the Honeybush Industry took place on 3 May 2006 at the Outeniqua Experimental farm near George. During this workshop the following issues were addressed:

- a) Discussion of the various forms of Intellectual Property.
- b) Describing the various unique characteristics of Honeybush Tea that may form the base for a GI.
- c) Noting the objectives of the role-players in the industry.
- d) Evaluation of the various forms of IP on the Industry.

Approximately at the same time a French Master student, Gentiane Blanchard, carried out a five months (May to September 2006) research study on Honeybush tea production and processing as part of a postgraduate degree in agronomy and rural development. The aim of this study was to contribute to answer the question: “Can a GI benefit the Honeybush tea community while conserving biodiversity?” She adopted both an agronomic and sociologic approach and the research focussed on farming practices, characterising their:

- a) Variability within the Honeybush production area and among different farming systems.
- b) Evolution.
- c) Ecological impacts on Fynbos biome.

The research results from this project were discussed at the SAHTA Annual General Meeting of 26 July 2006. From this research it became clear that:

- a) It is a relative new industry and the processes are still in the process of evolving. It follows that a production specification that is too strict may be to the detriment of the natural development of the Industry.
- b) The link between the product and human activity, culture and history is tenuous compared to European Experience.
- c) The geographically dispersion of the role-players and their part-time involvement negates against establishment of a GI.

Nevertheless, as time progressed it became clear that some factors are to the favour of establishing a GI in the Honeybush Industry. These factors include:

- a) The Industry is concerned that it may loose the intellectual property associated with Honeybush as well as its name.
- b) Grant (2005) argues that Honeybush is being produced in a wide range of locations and this, combined with the range of species, may create an interesting mosaic of regional specialities and specificity.
- c) The Industry must address the variance in the quality between producers and production runs in order to create a sustainable industry.
- d) There is a representative body that can take ownership of a GI on behalf of the Industry.
- e) This body is representative of all role-players in the Industry.

It is clear that the Honeybush Industry could benefit from some form of intellectual property protection as well as the rigour that a product specification and a certification process would bring. For that reason the Industry was invited at their AGM of 26 July 2006 to nominate a small group of individuals that could work with the project team to develop a product specification. This invitation was again extended during a presentation at the SAHTA farmers-day on 9 March 2007, the Strategic Planning Session of 29 May 2007 and the AGM of 27 July 2007. During the latter meeting a small team was nominated to proceed with the development of a GI for the Honeybush Industry. This team consisted out of representatives of the following groups:

- a) Commercial producers
- b) PDI producers
- c) Wild harvesters
- d) Processors
- e) Marketers
- f) Support capacity.

After the initial meeting of this team was washed out during the floods of 28 November 2007, it met subsequently on 13 February 2008. During this meeting consensus was reached on the way to proceed and the contents of a proposed product description.

Developing a product description for Honeybush

It was indicated in Section 0 that the development of a product description for the Honeybush Industry is still in its infancy. Nevertheless, the team delegated to develop a product description for the Honeybush Industry has started to reach consensus on the following issues:

- a) Quality standards for Honeybush. At this stage provision is being made for the following elements to be included:
 - The length of the cut.
 - Acceptable levels of foreign matter, insects, bacteria and other organisms.
 - Yeast and mould levels.
 - Level of fermentation.
 - Moisture content.
 - Odours, taste and aroma.
 - Acceptable residue levels.
- b) The delimitation of the area in which Honeybush can be produced will be determined by:
 - The Fynbos area.
 - The natural occurrence of wild Honeybush species.
 - Specific soil types.
- c) Harvesting requirements for commercially produced as well as wild Honeybush.
- d) Processing prescripts
- e) Packaging requirements.
- f) Labelling
- g) Transportation and storage.
- h) The conditions pertaining to blends.
- i) Provision will be made for Estate Honeybush.

These initial findings will be discussed at the next meeting of the members scheduled for 4 June 2008.

4. CONCLUSION

It was clearly shown in this report that the Honeybush Industry is indeed a very small industry with about ten commercial producers spread over an area of close to 800 km. The preferred growing conditions of the three commercially utilised species of *Cyclopia*, combined with this wide geographic area, leads to an interesting combination of potential quality and sensory niche products.

Yet, the Industry is in a crucial phase of commercialisation. The current harvest consists out of about 70 percent wild harvested product. It is evident that any significant growth in the demand for Honeybush could lead to increased pressure on the natural resources with associated threats on biodiversity. The consequence is that the future of the Industry is probably situated in a more significant share of the crop being cultivated. Yet, this could probably lead to a niche developing for wild harvested Honeybush. This trend towards cultivation creates its own dynamics such as the development of new techniques and production practices. It follows that any norm being created must be flexible enough to allow for new practices to develop while still preserving the cultural, production and bio diversity.

The industry has nevertheless much to gain from an initiative such as a GI. There is evidently the need to preserve the genetic material and the name for those people involved in the industry. The realities of the Rooibos case in the USA have made the Honeybush Industry aware of the dangers while, at the same time, brought the harsh realities of the vulnerability of a small industry to bear on the stake-holders. The Industry is also in dire need of a consensus on the quality standards in order to ensure consistency between various producers and even between batches of the same producer. Still, this mechanism must allow for the differences between species and localities. Finally, the Industry is in the fortunate position that it has a representative body that can lead the process and act as the custodian of the Intellectual Property of the Industry.

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D. KARAKUL CASE STUDY⁵

HOW A GEOGRAPHICAL INDICATION CAN COMPLEMENT A TRADE MARK - A CASE STUDY OF KARAKUL PRODUCTION

First part: Description of the main features of Karakul production and its specificity

1.1 Description of product and use

The Karakul lamb pelt is distinctive for its softness, its water-silk markings and lustrous, wavy curls. Most pelts are black, due to a dominant black gene, but other natural colours are grey, white, silver-grey, pink and brown. Karakul pelt is also known as Persian lamb, or sometimes as Astrakhan. The Karakul pelt has a wide range of application and furriers like the product as it can be combined with other fur, knit wear and the leather side can be printed. The fur is ideal for reversible garments.

The Karakul sheep (*Ovis aries platyura*) is believed to be one of the oldest breeds of domesticated sheep in the world. Originally from the steppes of Turkistan, this broadtailed sheep (so called because of the reserves of fat stored in its tail) gradually spread to other regions of Central Asia. The breed is named after the village Karakul, which lies in the former emirate of Bokhara (now Uzbekistan). Today Karakul sheep are farmed predominantly in Afghanistan, central Asian republics of the former Soviet Union and Namibia. They are possibly the only animals that can survive the harsh, arid conditions of these regions while providing both a source of food and income to local people.

The Namibian Karakul has been selectively bred to produce the flat "broadtail look". Broadtail is the term used by the fur trade to describe the pelt of a still-born Karakul lamb, where the mother has aborted naturally as a result of the harsh weather conditions, natural illness or pregnancy difficulties. Broadtail pelts are extremely rare and only account for a very small percentage of overall Karakul production. The broadtail pelt is flatter, softer and silkier than the traditional curly young lamb pelt. The term "broadtail" is also used to describe the pelt of a young lamb that has been bred specially to achieve the same look but the pelt is from a naturally born Karakul lamb rather than a still-born.

Swakara is the brand name for the pelt produced by the Namibian Karakul lamb. The name is derived from South-West Africa, the former name of Namibia (South-West African Karakul). The unique characteristic of the locally produced pelts makes **swakara** pelts easy distinguishable from Karakul pelts produced in Central Asia and Eastern Europe.

Use of other products from Karakul

Karakul sheep are bred for their milk, meat, fleece and pelt. Mutton from the breed has a distinct taste and local communities prefer meat from Karakul to any other meat.

A by-product of Karakul is wool. All wool is being taken up by the local Karakul weaving industry comprising about 15 weaving enterprises. Rugs for wall and floor decorations are skillfully designed by indigenous farm worker families. The colours used to represent natural colours but on request the wool is being dyed to suit the client's needs. The motives are typical African and depict rural scenes, animals and plants but fantasy creations are also in

⁵ Compiled based on documentation prepared by Bernd Rothkegel

demand. The carpet weaving industry is now 55 years old in Namibia and most of the weaving enterprises are found on Karakul farmsteads giving employment and a stable source of additional income to wives of farm workers.

1.2 Know-how, history and culture

Karakul has been bred in Namibia since early 1900. The Karakul sheep was introduced to Namibia in 1907. Due to the proximity, suitable rangeland conditions and economic integration in terms of the Southern African Customs Union, Karakul sheep production expanded to member states and in particular to South Africa and Botswana.

During the 1920's, intensive research work done by AD Thompson resulted in the flat curl that became popular in the international fur markets. Still today the flat curl type is sought after and contributes to the higher prices obtained compared to other Karakul producing countries average prices.

Another very important dimension in the uniqueness of the **swakara** Karakul pelts is that the pelts of all producers (after the pelts have been identified by means of a bar code) are aggregated before undergoing a very refined selection and assortment process. This system of aggregation of all producers' skins and sorting into homogenous classes and grades is not practiced in other Karakul producing regions with the result that bundles of skins do not match in size, curl type, pattern and quality. The assortment system for **swakara** has been with the industry for decades and it is believed that it has its origin well before 1920. Over time the system became more complex and changed to provide for the flat curl that was developed in southern Africa. The assortment system is a common good of the Karakul industry of southern Africa.

1.3 Production processes

During the course of the 99 years of Karakul production in Southern Africa, local production techniques were developed which are unique to the sub-continent and are underlying the uniqueness of the **swakara** pelts.

Karakul Production Methods

While little is known on the production methods in the Asian countries, i.e. Afghanistan, Uzbekistan, Kazakhstan and Romania, it is a known fact that Southern African production methods are specifically based and far advanced in terms of breeding policy, farming methods, herd management and rangeland management.

Producers moved away from a throughout-the-year breeding season to two to three shorter controlled breeding seasons. This allows time for other farm work and periods of rest for the animals. Breeding stock is normally obtained from the many stud breeders. All breeding stock that is sold at auctions must have been approved by the Namibian Karakul Breeders Society (KBS). The KBS (since 1929) requires that all stud lambs have a full pedigree of ancestors as well as a detailed description of hair and curl qualities accompanied by two photos (back and side view). By way of this detailed progeny history, producers decide on a breeding program for each sheep.

Because of the climatic conditions, only a small proportion of new-born lambs (20-30% depending on the region and the severity of the weather) can be kept and raised to maturity without damaging the land with overgrazing. In Namibia, 3-12 hectares of land are needed to graze each sheep. The young lambs that cannot be sustained naturally are slaughtered shortly

after birth, producing meat, wool, leather and the Karakul lamb pelt. In the majority of cases, Karakul sheep are bred by farmers in areas where natural conditions mean there are no viable alternative forms of agriculture. Single lambs are the rule, but occasionally twins are produced.

All **swakara** producers in southern Africa in general follow the same production techniques to a greater or lesser extent. This applies to all sizes of farming units. Range management is an exception. Commercial farmers are fully equipped with a number of grazing camps and water installation whilst farmers on communal land have no camps and their sheep and other livestock is roaming free. Without a number of camps, animals cannot be divided into many herds with the result that any breeding progress in communal areas is much slower.

Local Pelts Preparation Techniques

The treatment of the raw pelts is standard amongst all producers. Pelts are washed in clean water. No chemicals or preservatives are allowed. The wet skin is put on a frame made from hessian and allowed to dry in the shade for two days. The frames are kept in a well ventilated room. Gauze doors and windows keep flies out. The dried **swakara** skin has a unique square shape, because the wet skin is trimmed along the sides. Besides that it gives a better appearance, the straight sides prevent damage during handling.

Other Karakul producing countries do not make use of the hessian frame for drying, but instead the skins are put on the ground, flesh side up, and cover it with saw dust. No trimming is done. The dried skin has an irregular shape and is not free from saw dust.

All production techniques were developed by southern Africa Karakul producers. There was no contact with Bukhara in central Asia where the Karakul sheep originated from, with the result that no technology could be transferred. Today other Karakul producing countries in Asia and Eastern Europe know that the southern African karakul farmers have developed scientific karakul farming, breeding, production and research techniques. Requests from Romania and Uzbekistan have been received for technical advice and transfer of technology. Furthermore, they desperately want to get hold of local genetic material. Namibia has a ban on the export of Karakul genetic resources.

The techniques developed have been documented in the Karakul Production Manual and the Code of Practice. The application of the documented techniques is voluntary and no enforcement is needed. Quality control of the product urges producers to apply these techniques, which have been developed based on best practices over one hundred years.

The Assortment

Like a fingerprint, every karakul skin is unique. Meticulous care is taken to produce lots that offer the manufacturer the highest degree of uniformity in size, fibre formation, length, weight, quality and pattern excellence. While the modern karakul assortment has been refined in theory to the level of a science, all measurements are made by hand and eye, and therefore subjective. The sorting of karakul is and will remain of an artisan, not machine.

One bundle may have skins from different producers. The more uniform the bundles of skins are, the bigger the likelihood that processed skins do match to make up one garment. The opposite is also true. Too much variation within a bundle will result in a lower quality product and lower prices for the raw skin.

The system of pelts assortment provides for different classes of pelts based curl development and fibre length for each of the black, grey, white and brown pelts assortments. Each class is then further graded for fibre quality and pattern excellence. Large and small pelts are not mixed but assorted in separate classes. In practice this could mean that more than 100 bundles

of different classes and grades are on offer at the auction. Agra Co-operative as the official Marketing Agent of the Karakul Board is using this assortment system. Changes to the assortment are possible and this would be initiated by either producers of **swakara** (and this could be producers from South Africa or Botswana as well), the Karakul Board, Marketing Agent or the auction house. The final decision would lie with the Marketing Agent.

The assortment is documented in the **swakara Product Guide** (cf. 2.6). This book shows photographs of the type of skin for every class and gives an overview of the assortment system. The photos are also available in form of posters that can be placed on the wall at a convenient place where grading is done. Grading based on photos is always a subjective method and therefore at the Producer Forum and the Norm Days practical demonstrations are held. Farmers also have the opportunity to have training in the assortment by actually assorting skins for three weeks at the Pelt Centre. These courses can be attended throughout the year. Producers from Botswana and South Africa have attended courses.

1.4 Area of production and geographically distinctive features

Today, Botswana produces about 5%, South Africa 27% and Namibia the remaining 68% of Karakul pelts.

The main reason for the expansion of the breed can be attributed to the ability to adapt to harsh grazing conditions of the short shrub savannah in the western and southern parts of Namibia and North West Province of South Africa. In fact the quality characteristics of the skin, like the shortness and thinness of the hair as well as the lightness of the skin stands in direct correlation with the abundance of grazing. It favours a hot and dry climate. Pests and diseases are more common in areas of dense vegetation and high rainfall. The grazing habit of the Karakul, compared to other breeds, is less strenuous on pasture and the fact the sheep can be used for mutton production are additional benefits contributing to the popularity of the breed.

Besides that the Karakul breed is a smaller type of sheep in size and mass, the lamb is used for pelt production. It means that Karakul sheep have fewer lambs that need to be raised and therefore the comparative energy demand of a herd is considerably less compared to mutton and wool sheep breeds. This is then also the reason why the karakul breed is found in the more arid areas where one would normally not expect any livestock farming activities.

1.5 Level of use, marketing or exposure the product has enjoyed thus far (i.e. existing reputation)

Karakul pelts are mainly sold semi-annually at auctions in Western Europe. At present some 140.000 skins are produced and auctioned per annum. Due to the good prices experienced the past two years, farmers have increased their herds and some farmers have re-introduced Karakul sheep. During the next two years the pelts production could increase to 200 000 per annum.

Generally speaking a fur is a luxury item and as such most criteria that apply when purchasing luxury goods fits the price formation mechanism for karakul pelts and garments. Karakul does not have the high status of mink and fox. Furriers recon that only the third or fourth fur garment could be a **swakara**. **Swakara** is a short haired fur that falls into a niche where competition of other fur is not that tough. Karakul pelts offer a wide range of variability in terms of colour and curl pattern which makes it attractive to consumers. Needless to say that

while spending a lot of money on a garment, the consumer would like to be assured that her garment is a unique piece.

Swakara tops the prices of other Karakul pelts by about 25% - to 30%. The major factor contributing to premium prices is the scarcity of the product. During the late 1980, five million and more **swakara** were pushed into the market with the result that fur garments were sold by supermarket chain stores. This was one reason the prices for **swakara** crashed in the early 1980s. The high standard of the **swakara** assortment and grading system and the quality control reduces the risk of the manufacturer and the consumer of pelts that do not match or are of low quality. The **swakara** iron-on logo gives the client assurance of quality and uniqueness. The difference in the refinedness of the Swakara assortment system with regard to other countries is thus significantly contributing to the price differentiation.

Besides the conventional factors, like cold winters and cash for spending, the latest trend is to show off but not to strike the eye of the animal rights group. Karakul seems to be out of focus of these activists groups. On the contrary, **swakara** is produced by way of ecological sound farming practices. A hang tag gives the customer peace of mind (see 2.6 on Code of Practice, labels and hang tags).

Second part: Understand the current industry framework

2.1 Farming systems

There are about 600 karakul producers registered with the Marketing Agent. The number of producers includes producers farming in South Africa and Botswana. About 30 farmers are exclusively producing Karakul. The majority of farmers rely on other business enterprises as well, like mutton sheep, cattle, trophy hunting, eco-tourism, guest farming and indigenous fruit crop production, for example *Hoodia*.

The size of the flock of the farmers ranges from 50 to 3 000 Karakul sheep. Karakul farming is very labour intensive, however, controlled breeding seasons offer the opportunity to utilize time and labour force for other activities.

In the Karakul producing area, customary land tenure is practiced. Land is scarce and grazing, due to the communal grazing system, is scarcer. Resettled farmers from the previously disadvantaged groups are settled on their own title deed farms. Government incentive schemes, besides extension and veterinary services, in the form of productions loans have helped a number of farmers to become well established progressive Karakul producers.

In the Karas Region which is one of the regions where Karakul farming is practiced, the rural population makes up 46% and the overall unemployment of the region in the order of 29%. 30% of the rural population does not own any livestock. 30% of the households spend more than 60% of their income on food.

Due to the absence of other income generating activities, government has resolved to introduce the Karakul sheep to these rural communities. Hence the joint venture or partnership programme announced by government. At present almost all small holder farmers own a few goats. Goat production cannot be encouraged because of over browsing of shrubs. Karakul sheep live mainly on grass. Karakul pelts production is less strenuous on the natural vegetation due to the production method applied. However, in years of abundance of grazing, the sheep can be raised for mutton production.

2.2 Supply chain

Joint Marketing of Pelts

Ever since pelts were produced in Southern Africa, the same marketing channels were used. Over the years Namibia developed into the main production area and consequently the marketing structures in Windhoek, Namibia, became the accepted market institution for producers from all three countries (Namibia, South Africa and Botswana).

Pelts from within Namibia, South Africa and Botswana are delivered to the nearest Namibian Agra Co-operative branch. From these collection points the pelts are transported via the Co-operative's main branch to the Pelt Centre in Windhoek.

The Pelt Centre

The Pelt Centre is an institution registered in the name of Agra Co-operative (Pty) Ltd. The sole purpose of the Centre is to assort the Karakul pelts into over a hundred homogenous classes. The basis of the classification of pelts are the four main colours, namely black, grey, white and brown as well as the size of pelts, fibre (hair) length, quality of the hair, pattern excellence and curl type.

Marketing Agent

The Karakul Board of Namibia has officially appointed Agra Co-operative as its Marketing Agent. Agra has branches across the farming area and its head office and main branch is situated in Windhoek. The Pelt Centre which is an establishment of Agra is fully integrated administratively and operationally with Agra. This implies that pelts that are delivered at the branches are automatically electronically registered at the branch as well as at the Pelt Centre. Furthermore, once the pelts are sold, the payments are processed via the Co-operative's financial department. There is thus no duplication of transactions and administration.

Agra is a co-operative registered under the Namibian Co-operatives Act of 1996. It is an agricultural marketing, service and input provider and comprises Namibian citizens only. The co-operative is operating only within the boundaries of Namibia. It has 7 291 members and 378 staff. Karakul is the smallest business enterprise of the co-operatives.

Agra, as the Marketing Agent, negotiates the agreement with the auction house that auctions the **swakara** pelts. Due to the small number of white pelts, Agra negotiated a sales agreement for a specific period with a furrier. The price for the white pelts is by way of a formula linked to the prices fetched for the top range of black pelts at the auction.

The Marketing Agent is also responsible for the packing and shipping of the pelts consignment to Denmark where the pelts are exhibited and auctioned by Kopenhagen Fur, the auction house.

Karakul Board

The role of the Namibian government is significant in terms of creating a supporting environment conducive to production of Karakul pelts and promotion of the industry. Government has created an Act, the Karakul Pelts and Wool Act of 1982, for the establishment of the Namibian Karakul Board. The Board consists of eight members appointed by the Minister from nominations submitted by the respective organizations. The Karakul Producers Forum nominates four producers representing large and small scale farmers. The Karakul Breeders Society nominates one representative and the marketing organization, i.e. Agra Co-operative, nominates one person. Furthermore, the Ministries of Agriculture, Water & Forestry as well as Trade & Industry appoint one representative each. In addition the Minister may appoint any other person by virtue of his/her knowledge on the

international fur trade. This provides for the opportunity to appoint non-Namibian citizens to the Karakul Board. The Board is by virtue of its legislation a government statutory body. It is not funded by government but rather through imposed producer levies. Thus government has no shares in the Board. The main objective of the Board is to promote the Karakul Industry within Namibia and outside. The legislation gives statutory powers to the Board to, amongst other, impose levies and to exercise quality control.

The levies collected from the producers of the pelts are used for the administration of the Board and to finance promotion campaigns. The campaigns aim to expand local production of pelts and enhance the demand for the product in the main markets in Europe, the East and Russia.

Marketing of pelts is not limited by any legislation to the Karakul Board or its marketing agent. In fact, under certain circumstance, producers do sell their pelts to manufacturers and furriers of their choice. Unless the pelts have been approved by the Quality Control body, they will not bear the **swakara** trade mark.

2.3 State Involvement

Since the industry emerged in Namibia, the government has been a major actor in the Karakul industry in Namibia. In 1907 the then colonial German government introduced the very first sheep to Namibia. Since the early days of the previous century the state had research farms for Karakul. These farms were used to improve the quality of the national flock and to make available quality breed stock to farmers. The unique flat curl is a result of state research and breeding programmes. In 1929, the government declared the Karakul Breeders Society as the sole breeder organization for Karakul sheep and appropriated funds for the administrative work to the Karakul Breeders Society. In 1930, the state issued a ban on the exportation of Karakul genetic material. The ban is still in place today. This ban did apply to Southern African Customs Union member states in terms of the 1969 SACU Agreement. The Karakul Industry Advisory Board was established in 1939 in terms of the old RSA Marketing Act of 1937. In terms of the RSA Marketing Act of 1968, the Karakul Scheme and SA Wool Scheme the Karakul Board was established.

Due to the political constellation of the two states at that point in time, this Board did comprise citizens from South Africa as well as Namibia. With the commencement of the Karakul Pelts and Wool Act of 1982, the Marketing Act no. 59 of 1968 and the marketing schemes thereunder, namely, the Karakul and Wool Scheme were repealed.

Today the government of Namibia still owns Karakul research farms and it possesses valuable Karakul genetic material. During 2006 Cabinet agreed to a partnership between the state and the private Karakul industry to jointly manage and further develop the state facilities for research and training and to further improve the state genetic Karakul resource to the benefit of emerging, resettled and small holder farmers and its neighbouring states. Other industries like the meat and agronomy sector enjoy similar privileges but to a lesser degree.

2.4 Quality Control

In terms of the Act, the Karakul Board has instituted a Quality Control body comprising producers, the Marketing Agent and the Karakul Board, with the aim to assure that only pelts that meet the criteria are being sold under the trade marks. Quality control is a requirement in terms of the Karakul Pelts and Wool Act; however, the quality criteria are set by Quality Control body. Producers from South Africa and Botswana do make contributions if they feel

a need to adjust the quality standard, (see section on Farmer Participation in Standard Setting).

The pelts characteristics have been researched ever since the sheep was introduced to Namibia in 1907. Research work is well written up and training institutions like that agricultural colleges and government's extension services use the documentation for courses and demonstrations. Furthermore, the Karakul Norm Day is actually instituted to communicate in theory and by way of practical demonstration the characteristics of the breed and the pelts and to explain the quality control selection criteria and standards. The norms set for the industry and the standards agreed on by the industry as well as the quality control criteria is therefore unique in the world and applies only to the Karakul industry of southern Africa.

Pelts that do not meet the minimum quality standard are being destroyed to ensure that they do not enter the market. Quality is defined in terms of hair length, curl and follicle development, luster and elasticity of fibre as well as biological, mechanical and chemical damage. About 1% skins are rejected for not meeting pelt characteristic standards and another 1% is rejected due to biological and mechanical damage.

2.5 Swakara Trade Mark

Circumstances that eventually led to the adoption of a trade mark are of interest because it discloses the uniqueness of the product. At the first international pelt exhibition, the IPA in Leipzig in 1930 the then South West African Persian Lamb had had difficulty in obtaining the denomination of a real Persian lamb (i.e. karakul lamb), because it had developed into something new, individual and different. In order to stress this newly developed product in America, the name **swakara** has been suggested. This name then developed an identity and consequently became the trade mark.

Today the **swakara** trade mark is applicable for pelts originating only from Namibia, South Africa and Botswana. Although there is no formal inter-state agreement recognizing the marketing channel under Namibia legislation, the governments of the three countries are aware of the marketing system in place and actually support this type of cross border marketing arrangements.

The trade mark is registered in the name of the Karakul Board in terms of a Namibian legislation. It is registered in the Southern African Customs Union member states, i.e. Botswana, Namibia, South Africa and Swaziland. In addition the trade mark is registered in Italy, France and Germany. For practical reasons in the latter three countries, the trade mark is registered in the name of IMCO, a wholly owned company of the Karakul Board. Some 30 years back the trade mark was registered in other countries as well, like Canada, Switzerland, Estonia, France, Great Britain, Georgia, Hong Kong, Lithuania, Latvia, Japan and the USA. However, due to the shrinking of the local industry and the high cost of maintaining the registration of the trade mark, registration was limited to countries where most of the product was traded.

The **swakara** trade mark is an individual trade mark, but has the characteristics of a collective as well as a certification mark. The trade mark is used by many with the fur industry who are not members of the owner of the trade mark, which is the Karakul Board. Furriers, fur traders, the auction house and the consumers use the logo to promote their business and image. The Karakul Board hands out iron-on **swakara** logo tags which are very popular and clients immediately inform the Board if their stock of iron-on tags runs low. This seems to suggest that the trade mark is being associated with a certification mark status.

The advantage with the trade mark is that trade knows the logo and is assured of, firstly, the quality of each pelts or fur, and secondly buyers of bundles of **swakara** pelts at the auction have assurance of a high degree of homogeneity of colour and quality. A third aspect which is as important to customers is the fact that the buyer can actually refer back to the Karakul Board in case of legitimate claims of losses due to damage.

The disadvantages of a trade mark are financial constraints and bureaucratic procedures with the registration process. Trade marks lap after some years and it is a time consuming process to re-register a trade mark. In practice applications for registrations are advertised for six months or more before registration and often one forget about the date of expiry of registration. A limitation is that trade marks are registered for certain categories of goods, like shoe and leather wear, belts, hats and handbags. An incident arose when an entrepreneur marketed a perfume with the **swakara** brand name.

In summary, it is a costly and nearly impossible task to register the trade mark in all countries where fur garments are manufactured and sold.

Some 20 years back the Karakul Board had another trade mark and logo registered for the Italian market. The Desert Rose trade mark was used for about 8 years. Due to fast dwindling of the numbers of pelts produced in the late 1970 and early 1980, the Board discontinued this trade mark. The number of pelts dropped from some 5 million to half a million per year and the Board saw no justification to maintain two trade marks while production was that low.

Where in the past the Karakul Board had agents appointed in most of the European countries to promote the product **swakara** and Desert Rose, the misuse of the trade marks were limited due to the presence of the agents in these markets. These days one is finding more abuse of the **swakara** trade mark which is being used to promote pelts originating from other Karakul producing countries.

2.6 Other qualification processes

The biggest part of the Karakul Board's budget is spent on information and promotion. Various types of qualification and communication strategies are being developed as discussed on this part.

Indication, Labels and Hangtags

Based on the adaptation and suitability of the breed, over the years a slogan emerged characterizing the interaction between Karakul, the natural environment and man. **Swakara** is top eco-product in line with the global strives towards sustainable utilization of a natural resources to benefit a country and its people. In southern Namibia there is no better breed to create near perfect harmony between man, animal and nature thereby producing a fur which has no equal in the world which is like a living piece of art. Giving an expert opinion on the Eco-Fur is zoologist, Prof Dr Helmut Hemmer of Mainz, Germany, who says, "*In view of the natural free-range methods used by the Karakul farmers in Namibia, where the soil has not been contaminated by insecticides, one finds a prime example of a Bio-product. The multiple utilization of the animal in the form of meat, wool and fur can well serve as an example to farmers in other arid areas*". The hardiness of the Karakul sheep and its ability to survive in arid areas ensures human habitation without destroying the balance of nature. While grazing, the animals trample grass seeds into the soil, which would otherwise be carried away by the wind, thus ensuring regeneration of the veld.

Some retail furriers in Europe and the least are insisting on the Eco-Fur Bio-Pelz hangtag which the Karakul Board provides for the use on **swakara** garments.

A separate hangtag, the “Origin Assured” (OA) mark has been developed for farmed and wild fur to assure fur customers to ensure that the origin of their new fur is from a country where regulations or standards governing fur production are in force. The program represents an initiative by the international industry to offset anti-fur arguments by animal rights organization. It was launched in November 2006 and the Karakul Board has been invited to participate once the Code of Practice has been endorsed by the Namibian government.

Code of Practice, Production Manual and Product Guide

The Karakul Board developed a *Karakul Production Manual* in 1998 to inform on and illustrate production methods and techniques to new comers to Karakul production. The topic addressed in the Manual are:

- range management and grazing density;
- herd composition;
- selection and purchase of rams;
- herd management;
 - breeding seasons
 - clinical and progeny testing of rams
 - lamb season
 - selection of lambs
 - weaning of lambs
- breeding with white, brown and grey sheep;
- record keeping.

In 2004 a *Product Guide* was published. The *Product Guide* aims at the buyers as well as producers of **swakara** pelts. It provides information on the pelt assortment, grade categories and quality aspects **swakara** skins are assorted into over one hundred categories. The photographs contained in the Product Guide are also available on posters. The book and poster are very popular among producers as well as skin dealers and fur traders.

In 2006 a *Code of Practice for the Care and Handling of Karakul Sheep* was compiled. This document is currently being discussed by the industry before it is submitted to Cabinet for endorsement. The final product should guide producers on minimum standards of farming and production techniques applied in the industry. The basis for the *Code of Practice* is animal welfare issues and aspects of environment, rangeland management, social and labour matters have been addressed as well.

Farmer Participation in Standard Setting

There are two regular events when stakeholders of the Karakul industry and in particular producers, have a forum to bring matters of interest to the attention of Karakul Board.

During September each year the Karakul producers gather for two days. This occasion is normally well attended by large and small scale and resettled farmers as well as commercial farmers and beginner farmers from South Africa. During the two days the Karakul Breeder Society holds its AGM and on the day after the meetings the Keetmanshoop Elite Karakul Ram auction takes place. The main event culminates in the Karakul Forum meeting which lasts one day and ends with a formal dinner and price awarding ceremony. Prices for the Top Ten pelt producers and occasionally the Karakul Board’s highest award the Golden Lamb is awarded. The latter is a recognition to a person or organization that made an outstanding contribution to the industry.

The agenda of the Forum provides for the Karakul Board to inform on its annual activities and in particular on observations on and the response to its promotion campaigns. The report giving an overview of the international fur trade is followed by a report on the analysis of prices fetched at the three regular pelts auction held in Copenhagen.

Experts either from their own ranks or invited speakers inform the Forum on matter of interest, i.e. the latest fashion trends, colours and manufacturing techniques, research work done, e.g. identifying of genes (DNA) responsible for certain characteristics, etc. Examples of the outcome of discussions at the Forum are the *Production Manual and the Code of Practice for the Care and Handling of Karakul Sheep*.

Other topics that come up from time to time are the increase of levies to be paid by producers themselves and quality control aspects.

A further occasion is the Norm Day held every other year. This day is organized under the joint auspices of the Karakul Breeders Society and the Karakul Board and is devoted to matters relating to quality standards of breeding material, pelts characteristics and the pelt assortment. The members of the Quality Control body are present on that day with the aim to adjust quality standards if so agreed by the producers. The Norm Day is popular and attended by breeders, pelt producers and beginner farmers and there is a standing invitation to producers from South Africa and Botswana to attend.

Further elements on information and promotion

With a commodity like **swakara** pelts that is produced far away from the market and not having any agent to do marketing and promotion, the Board has to rely on the flow of information to and from the market. The market can be segregated into the auction house, fur traders, fashion houses, designers, manufacturers, fur retailers/furriers and the consumer. Each of these segments has a different function and role to play and as such the marketing strategies differ.

For example, the auction house and fur traders are interested to hear about the standard of the assortment, the number of skins at offer and very important the estimated offer of skins for the upcoming six auctions (in other words the next two years). Manufacturers like to learn about the handling and treatment of the skins. This information is necessary because certain skin treatment techniques could negatively affect tanning and dying.

Fashion houses, designers and retailers will ask questions on the quality of the fur (weight, length of hair, luster and curl pattern) because the product has to fit their concept of fashion, colour and design.

The final customer, which is the consumer, is more interested in the story around the fur. Therefore it is important to constantly feed information on the origin (arid south western part of Southern Africa, desert), ecological issues (sustainable range land management, predator tolerant production), farming techniques (sheep farming as opposed to wild fur trapping, code of practice for the industry) and social consideration (labour practices, minimum wages, no child labour, involvement of indigenous communities, upliftment programs of rural poor). For the consumer this information becomes even more attractive if linkages of Karakul farming and tourism exist.

The communication channel for the above mentioned market segments also differ. For example, the consumer does not attend the international fur trade fairs. The consumer likes to shop at fur boutiques and read the glossy fur magazines. The traders and, to some extent, manufacturers and furriers attend fur fairs. The auction house, designers and fashion houses

might pay a visit to fur fairs. Therefore the Board has about ten different communication strategies.

Board members and representatives from the industry must attend the major fur fairs to observe fashion, trade considerations, trends and market prospects. At times the Board hires a booth with the aim to attract customers for business information exchange. Depending on the available budget, the Board acquires the skills of famous designers and reputable manufactures to put a **swakara** fur garment collection together which are presented at the fur fairs in Europe and Asia. The aim is to make a fashion statement to boost the demand for **swakara**. Besides showing the collection on the catwalk, a brochure, editorial material, photos and posters are made of the collection. The editorials and photos are meant for fur magazines like the *Pellice Moda*. Special editions publish the information material in the major languages e.g. English, Japanese, Chinese, Russian, Italian and Spanish. Posters are sought after by the furriers to decorate their boutiques and to attract customers, while the brochures as well as the editorial and photo material in the furs magazines are aimed at the end consumer. The brochure has to inform the client on the origin, environmental and social issues around the production of **swakara**.

Newsletters reporting on the figures and the number skins to be offered at auctions are sent via the auction house prior to every auction to skin merchants and traders.

Hang tags and iron-on **swakara** logo labels are being supplied to furriers at no charge. Retailers and the customers do like these labels. The hang tag – as described under a separate heading – contains useful information on the “bio-pelt from the eco-lamb”.

As an ongoing promotion campaign, the Board donates skins to schools where prospective furriers are being trained. This has been successful in the sense that prominent designers, furriers and manufactures have been introduced to **swakara** and have had the opportunity to work and experiment with the product. Many ex-students of these vocational training centres are still loyal to **swakara** and do have the product in their range of products. At the Frankfurt fur fair a first, second and third price is annually awarded to the designer of the best garments made from **swakara** displayed at Frankfurt.

The Board has recently created a web site. The target groups are first and foremost skin dealers and traders as they need to be updated regularly on skins at offer and prices obtained. At a later stage the web page will be extended targeting furriers, manufactures and consumers.

E. CAMDEBOO MOHAIR CASE STUDY⁶



A well established localized product with a strong quality strategy driven by a local organization and protected through a trade mark

⁶ Danie Jordaan and Dr Merida Roets

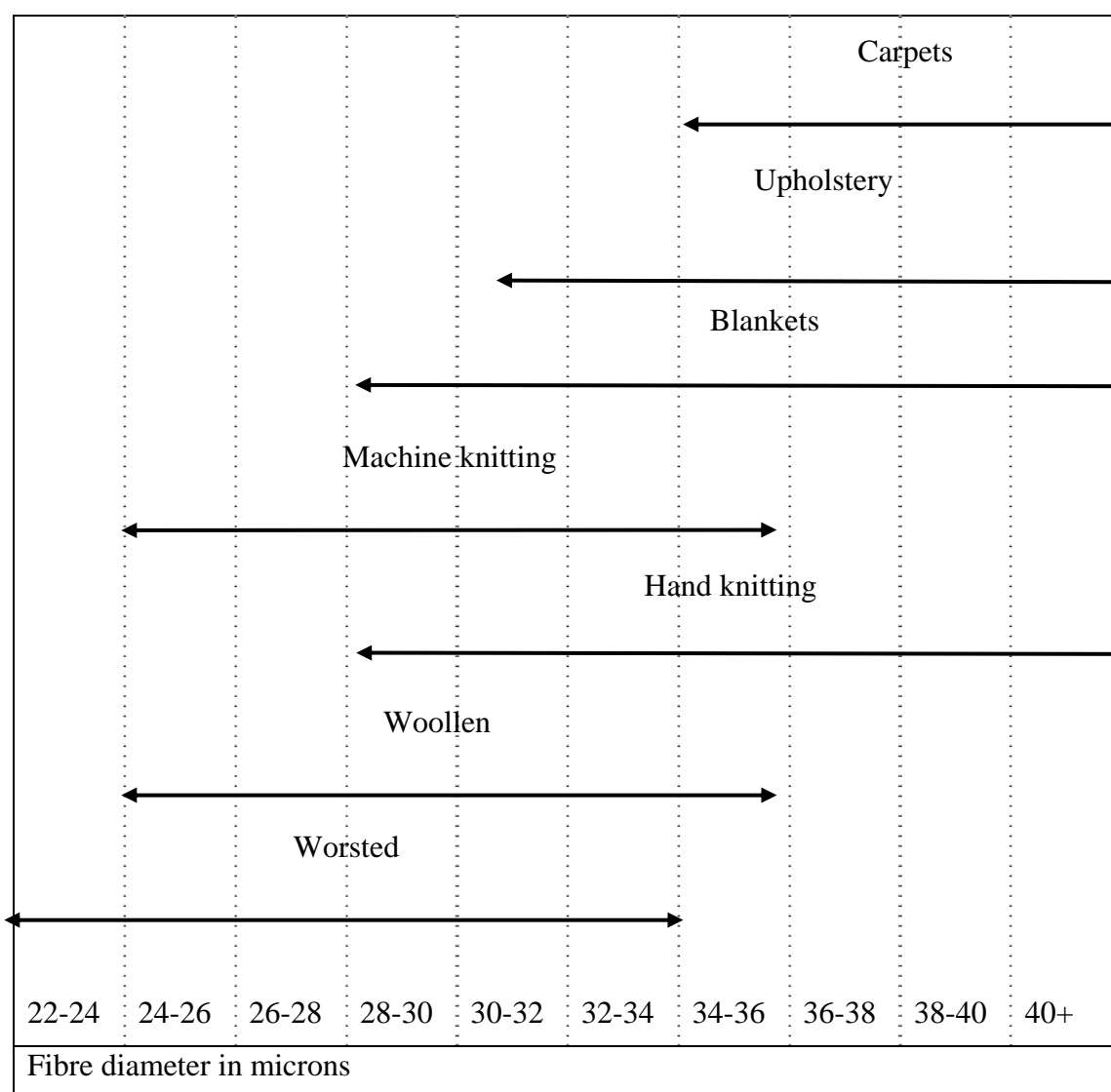
1. Specificity of the product

1.1 Description of product and use

The pillar concepts of Camdeboo Mohair are the production of mohair with unique characteristics (certifiable quality, produced in identifiable geographical area, produced according to a value system), that would differentiate Camdeboo from other mohair and serve as the basis for the development of a globally recognisable brand. Scarcer than cashmere, rare and precious, Camdeboo Mohair has many inherent qualities, including excellent crease resistance, good insulation properties (cool in summer, warm in winter) along with the ability to combine well with other natural fibres.

Camdeboo Mohair finds application in a number of diverse products, each with different end uses and markets which include exclusive apparel, knitted and brushed products and upholstery and carpeting. Figure 1 below provides a general indication of the end-uses of mohair based on fibre diameter. The markets for products containing mohair varies from home industries that offer craft products to exclusive boutiques that offer custom tailored products like exclusive men's and ladies' apparel and designer furniture.

Figure 1: The markets and end-uses of mohair



Source: FAO, 2005; Loots, Personal communication, 2005

From this figure it is evident that different types of mohair have quite different applications and demand characteristics. Camdeboo Mohair can be used for all of these applications since the Camdeboo clip is made up of the range of microns as depicted. However, the current focus for Camdeboo Mohair is the high quality worsted section of the market; most of which is used in high quality luxury apparel for both men and women.

Evidence is available to show that the value-system that is being used to differentiate Camdeboo Mohair from the general clip is successful in presenting a unique product to the market. Tests were conducted by the South African Wool Testing Bureau on pure Camdeboo mohair tops and standard non-Camdeboo tops, both of similar high quality. Through recognised scientific methods for testing wool and mohair, a number of important physical parameters relating to the quality of the mohair were analysed. These parameters are related to the processing qualities of the mohair and ultimately the quality of the final item that is manufactured from the mohair. The tests revealed that mohair fibre produced by Camdeboo producers would generally be stronger (fewer breakages) and more uniform along its length than “standard” mohair fibre. This enables the spinning of a finer and more uniform yarn. Furthermore, Camdeboo Mohair is certified free from impurities and is better classed. In other words, a Camdeboo mohair lot is more uniform throughout the bale. This is a particularly important feature when mohair tops are being made up, since inconsistencies cannot be corrected after the top-making processing step, and high-end fabric manufacturers require a uniform, sheer and “pill-free” final fabric.

The comfort factor of the Camdeboo yarn was also found to be significantly higher than for a “standard” yarn despite both yarns being spun from similar tops. In all of these instances the Camdeboo mohair was found to have superior processing and final product attributes of like “quality” standard mohair (Reynolds - Personal communication, 2005).

Camdeboo Mohair possesses these characteristics, not necessarily because of the genetic make-up of the angora goats used, nor because of the nutrition these animals receive, but rather by combining the genetic make-up of the angora goats found in South Africa, with the unique vegetation and climate of the Camdeboo and surrounding regions of the Eastern Cape with stringent animal management and clip handling practices.

The implementation of the Camdeboo Mohair value system requires that producers are compelled (by a membership agreement) to adopt the “best practice system” as described below. As illustrated above, this value system yields mohair of exceptional quality with processing and final product attributes, superior to like-quality standard mohair.

1.2 Human factors

Angora goats, known for their production of long, white, and slightly curly, luxurious mohair fibre, were first imported into South Africa via India by Colonel John Henderson, a former British officer, in 1838 (Uys, 1988). The Sultan of Turkey had placed an embargo on the export of Angoras from Turkey at that time, and so it was that the next Angora imports occurred only 15 years later. During that time the original Angora buck and its mother were crossed with the existing, common, short-haired goats of South Africa, and the progeny of these crosses formed the basis of the Angora Goat industry in South Africa (It is interesting to note that such crosses are avoided at all costs today, because such crosses create an animal that carries a fibre known as cashgora, that cannot be used either as a mohair or as a cashmere). By 1880 it was reported that there were between 2 million and 2 and a quarter million Angora goats in the Cape Colony (Uys, 1988). Since the first Angora goats were brought to South Africa the husbandry of raising Angoras and growing mohair has developed and become ingrained into many families as a craft in the mohair producing area of South Africa (The southern Eastern Cape Province).

Angora goats are notoriously “high maintenance” in that they are extremely susceptible to adverse environmental conditions and have, unfortunately, developed a weakness to abort (this has been ascribed to the breed’s inability to maintain blood glucose levels under stressful conditions - Herselman, Olivier and Snyman, 1998). This constraint have created an industry where the goats require constant and attentive human management interventions and a successful operation requires attentive and timely decision-making on the part of the Angora farmer. At the first sign of adverse weather conditions, farmers are compelled to provide supplementary feeding in the form of grain (starch) which serves to lift the blood glucose levels. A single delayed response to these severe weather warnings, or one day of under-feeding, will invariably result in a mohair clip that will display a severe break or weakness in the fibre (such a weakness is easily detected by “snapping” a lock of fibre between the fingers) or abortion.

Similarly, management decisions must constantly be made regarding selection and breeding decisions. Strict adherence to the Angora Goat Breed Standards is required to produce an animal that produces high quality fibre of a specific diameter, length, character and style, without kemp, that is robust enough to raise healthy kids, without impacting on the health of the animal. A higher incidence of reproduction problems and lower growth rates has been linked to the persistent selection for fibre production (i.e. there is a negative genetic correlation between body mass and fibre production) – this trend is now being reversed through due consideration of this negative correlation and is addressed through adaptations made to the Angora Goat Breed Standards (Snyman, 1997).

Furthermore, the correct preparation of the clip requires specific skills in fibre classing and shearing management. These requirements are well described in the Mohair Classing Standards (Mohair SA, 2008) attached to this report as Appendix A.

1.3 Production processes

Angora goats are generally grazed extensively with shelter being provided for the animals to seek shelter in adverse weather conditions. The terrain most suited to the production of Angora goats is dry, mountainous and rocky – conditions to which these goats (originally from Turkey) are well-suited. The dryness of the region furthermore, creates an environment relatively free of internal parasites. The breeding season occurs in March and April (autumn) with kidding occurring in August and September (spring). Generally, the bucks are run with the does for 2 to 3 months over the breeding season. Supplementary feeding may be supplied specifically prior to cold snaps. Whereas fibre length is not very responsive to changes in nutrient status (this is more a genetic characteristic), fibre diameter increases with improved nutrient supply (Reis and Sahl, 1994). However, it must be remembered that finer fibres attain higher prices. For this reason, Angora goats are generally not supplied with additional feed but are dependant on the natural grazing, browse and shrubs that occur in the mohair production areas of South Africa. Angora goats are dipped for external parasites and dosed for internal parasites (if required). Vaccination and disease management programmes specific to the production region are followed. Depending on the farmer’s production system, Angora goats may or may not be “washed” prior to shearing.

Angora goats are shorn twice a year; usually during March/April for the so-called summer clip and August/September for the winter clip (Van der Westhuysen, Wentzel & Grobler, 1988). After shearing, the mohair is classed on the farm into a number of classes broadly based on the quality of the mohair (length of the clip, style, character and whether the goats shorn are young kids or adults – this roughly defines the fibre diameter – See Appendix A). After classing, mohair is baled into distinctive class lots and either sent to a broker to offer for

sale or to a merchant, who buys the mohair, re-classes it and then also offers it for sale to mohair buyers.

The defining characteristic of the Camdeboo Mohair business system is that it seeks to create a recognised value system that guarantees the quality of mohair produced under the Camdeboo brand name. This, in turn, is supported by agreements throughout the supply chain to safeguard the quality, and support the guarantees that are provided. Thus, CMW and BKB agents already operational in this field have been licensed to assist in the identification and verification of Camdeboo Mohair.

The Camdeboo Value System entails that certain minimum requirements be met regarding the objectively measurable quality of the mohair and for those producers, to ensure mohair of exceptional quality, to also apply certain best practice principles.

The broad outlines of the value system are:

- Producers are to follow basic best production practices for mohair through:

- Progressive breeding to improve the genetic quality of the Angora goats which would in turn improve the quality of the mohair that is produced (no coloured fibres and no kemp)
- Optimal shearing schedules to improve the quality of the mohair that is shorn (optimal fibre lengths)
- Husbandry practices that are conducive to high quality mohair production (zero vegetable contamination).
- Producers must take preventative action to eliminate pollution from the grazing area through production to the point of delivery.
- Producers must adhere to accepted grazing systems that are environmentally friendly and conducive to sustainability. The veld of the Angora production area is particularly vulnerable to over-grazing (See Section 1.6 below). Thus, correct stocking densities and rotational grazing systems are applied to ensure the long-term sustainability of this particularly dry area.
- High standard of classing (clean shearing and baling sheds, zero contamination, no smoking) – (Generally, CMW and BKB agents must be present at shearing to ensure that these standards are met)

- Producers must adhere to the official classification and packaging standards determined by the mohair industry under the protection of the Marketing of Agricultural Products Act (Act 47 of 1996).

- The consistency of the bales are checked before baling
- Bale samples are sent for fibre diameter testing
- The bales are delivered along with all other mohair to the Auction floor but these bales are marked with a “C”.

- Agents still get a commission on the price paid (as with all mohair that they are involved in marketing)

- Camdeboo Mohair is paid 0.8% of the final product price.

Through the implementation of this value system Camdeboo has achieved a verifiable difference in the pure physical attributes of mohair produced by Camdeboo producers versus

that of other (non-Camdeboo) mohair producers. Because of this perceptible difference a premium of 5 to 12% is paid for Camdeboo Mohair on the auction floor.

1.4 Indication

Camdeboo is the name of a region in the Eastern Cape of South Africa. Originally a word from the Hottentot's language, "Camdeboo" is an old name for the eastern plains of the arid and starkly beautiful Karoo region of South Africa. It was the book by Eve Palmer "The Plains of Camdeboo" which firmly established this name in this area. The word Camdeboo is also described as a Hottentot word meaning "thirst-land" characterising the dry and arid climate of the specific region of South Africa.

1.5 Area of production (Specific geographical boundaries)

The Camdeboo region lies within the confines of the Eastern Cape Province which is also the premier mohair producing area in South Africa and has the most suitable farmland for Angora farming. The Camdeboo region of South Africa has long been recognised, both locally and internationally, as the superior mohair producing area (see annexure 5).

1.6 Geographically distinctive features

The suitability of the Eastern Cape, and the Camdeboo region within it, for the production of mohair can be ascribed to the historical establishment of on-farm infrastructure (shelter, shearing sheds, kraals, dipping facilities, fencing, etc.) for the production of fibre producing animals (wool producing sheep and mohair producing goats), shrub vegetation that is well suited to the browsing requirements of goats and a predominantly healthy climate relatively free of the serious small stock diseases commonly found in other areas of South Africa.

Although the area known as the Camdeboo was first conceptualised in literature in the 1940's, the area between Jansenville, Aberdeen and Graaff-Reinet is also commonly referred to as the Camdeboo Plains from a botanical perspective (Vlok and Euston-Brown, 2002). Over 218 different species of plants were identified in this area which includes Camdeboo Escarpment Thicket, Eastern Lower Karoo and Lower Karoo Gwarrieveld veld-types (Prof. Eileen E Campbell, Head of Department, Department of Botany, Nelson Mandela Metropolitan University, Port Elizabeth – personal communication).^{Pearston}

The specific thicket that occurs here is known as the Sundays River Thicket. The following species of plants are endemic to this specific thicket: *Aloe bowieae*, *Aloe gracilis*, *Brachystelma cummingii*, *Brachystelma schonlandianum*, *Brachystelma tabularum*, *Ceropegia dubia*, *Ceropegia zeyheri*, *Encyonema horrida*, *Euryops ericifolius*, *Gasteria baylissiana*, *Glottiphyllum grandiflorum*, *Haworthia arachnoidea* var. *xiphiophylla*, *Huernia longii*, *Lotononis micrantha*, *Orthopterum coeganum*, *Pelargonium ochroleucum*, *Rhombophyllum rhomboideum*, *Strelitzia juncea* and *Tritonia dubia* (Vlok and Euston-Brown, 2002).

According to Vlok and Euston-Brown (2002) "...herbivores are probably particularly important to maintain the dynamics and species richness of the Mosaic with Nama Karoo units along the floodplains of the local rivers. Here species such as *Acacia karoo* may become dominant in the absence of large herbivores. A finely balanced sequence of defoliation by herbivores to those by fire is probably periodically required to maintain the species richness of these Mosaic units. Both herbivores and fire thus seem to have played an important part in the evolution of the Sundays Thicket units and the plant species end^{ed} at all the Sundays River Thicket units are, however, equally resilient against the potential impacts of large herbivores. Especially those of the more arid areas, Sundays Arid Thicket, seem to be very sensitive to the severe grazing impacts. Once the canopy cover of these Thicket units is

fragmented, the vegetation is rapidly (and probably irreversibly) altered to a depauperate form of Nama Karoo...”.

Thus, there are several plants that are endemic to this area and it is alleged that the grazing of herbivores has played an important role in the evolution of the habitat and is furthermore important for the continued maintenance of this unique habitat. It must be remembered also, that over-grazing of this area will cause irreparable damage. In the Camdeboo this finely balanced animal-plant-human dynamic has both created and maintained this distinctive geographical area which is so specifically suited to mohair production.

1.7 Level of use, marketing exposure

Mohair is primarily an export product with the first exports of mohair already taking place in 1857 when 400 kilograms of unprocessed mohair to the value of £10 was exported to Britain (Pringle & Döckel, 1989). During the 160-year existence of the South African mohair industry the extent of the industry has increased significantly and during 2003 approximately 5 million kilograms of mohair to the value of approximately R 186 million were exported. Approximately 680 tons of Camdeboo Mohair has been produced at this stage (2008) making it an exceptionally exclusive product.

South African mohair is primarily exported to Europe and Asia, with Europe importing approximately 57.5% and Asia 41.3% of South African mohair exports. Table 1 below summarises the exports of South African mohair to its respective main export markets, as a percentage of the total exports of South African mohair. Mohair exports from South Africa are also very concentrated; with three countries - the United Kingdom, Italy and France - buying 51% of mohair exported from South Africa. If Taiwan and India are included, 77% of mohair exports from South Africa are bound for only five importing countries (Mohair South Africa, 2004).

Table 1: Export destinations for South African mohair (1999-2003)

Percentage of total export by weight

| Export Region | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| United Kingdom | 33.29 | 20.75 | 10.09 | 15.31 | 11.30 | 10.45 |
| Continental Europe | 28.83 | 43.72 | 36.74 | 41.35 | 31.41 | 48.40 |
| Asia | 37.62 | 34.64 | 51.57 | 42.59 | 57.22 | 40.06 |
| Other | 0.26 | 0.89 | 1.61 | 0.74 | 0.07 | 1.10 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Source: Mohair South Africa, 2004

Collectively, Camdeboo producers produce 12% of the total global mohair clip and almost all of the most exclusive quality mohair available in the world (Camdeboo information brochure). Since its inception, Camdeboo Mohair has built a very strong reputation as a global player in the high quality mohair sector and this producer-driven company has managed to successfully establish itself, throughout the world, as an authoritative mohair trademark, guaranteeing exclusive mohair quality.

Recent price analyses have revealed that Camdeboo producers earn, on average, 5 to 12 % higher prices for mohair than producers of standard mohair of like quality. The price data reveals that during 2001, 2002 and 2003 Camdeboo producers earned on average 7%, 13% and 16% respectively more than the overall average market price for the same period

(Reynolds, Personal communication, 2005). It is noteworthy how, on average, Camdeboo producers' prices have increased in comparison to average market prices as the Camdeboo initiative has gained momentum.

2. Understanding the current industry framework

2.1 Collective structure

The Camdeboo concept was the brainchild of six leading mohair producers who recognised the value and importance of collective marketing and the establishment of a globally recognizable brand in combination with a stronger aligned and coordinated supply chain within the dynamic global agricultural marketing environment. The initial group of six producers agreed to form a company during 2000 that would, by including more producer partners, grow to become the world's primary source of exclusive quality mohair. The vision of the company is to produce the highest quality mohair in the world and offer a customer based service in support of this activity.

Camdeboo Mohair is a producer-owned company with membership now (2008) totalling some eighty-four South African mohair producers primarily located in an area within a radius of 300km from Port Elizabeth. Membership can be attained by the payment of a R 4500 membership fee, followed by permission granted for CMW and BKB to do background research on the mohair produced by the producer (who have experience of the producer's past production). Membership is granted if producers can meet and maintain the minimum Camdeboo quality related standards prescribed by the Camdeboo Value System. The members of the company all pay an annual "membership fee" and are subject to trial membership to make sure that the producer conforms to the quality standards that the company sets for its members (Assessed by BKB and CMW agents). A probation period is also applicable should the quality of the producer's mohair drop below the standards necessary to market the producer's mohair as Camdeboo mohair.

Currently, the core of Camdeboo's members are leading South African mohair producers that have proved themselves as producers of the most exclusive quality mohair available. The stature of Camdeboo's producers is evident from the various prestigious international quality-related awards that these producers continuously win in recognition of mohair of exceptional quality.

Camdeboo Mohair is by no means "exclusive", in fact, its organisation is extremely inclusive. All currently existing marketing mechanisms have been invited to contribute to the process of assisting all mohair farmers in delivering top quality fibre to the end market. Thus, agreements are in place between Camdeboo Mohair and BKB and CMW agents to ensure that mohair which meets the exacting standards of Camdeboo Mohair finds its way, properly sorted and labelled, to the auction floor so that producers can enjoy the higher prices that result.

2.2 Farming systems

Camdeboo producers vary in size but generally speaking the bulk of mohair producer for Camdeboo Mohair are medium to large scale farmers. Farms on which mohair is produced can vary between a few hundred hectares in parts of the region with high carrying capacity to farms that stretch over many thousands of hectares in parts of the region that are very dry and arid and have a low carrying capacity. Mohair production is usually complimented by other farming activities that include the production of wool, mutton, beef, and to a lesser extent game, Boer goats, ostriches and crops. The choice of which is dependant on climatic and vegetation conditions.

2.3 Supply chain: current relationships of farmers with downstream actors

The Camdeboo Mohair Company was established with the aims to establish partnerships with mohair clients through personal interaction and the licensing of clients to use the globally registered Camdeboo brand name. The Camdeboo concept integrates planning, controlling and optimising the flow of information and Camdeboo mohair from the point-of-origin through the mohair supply chain between producers, service providers to end-users with a primary focus on satisfying the needs of the end-user.

As mentioned previously, licensing agreements have been established with BKB and CMW to pay particular attention to the shearing, classing and preparation of mohair deemed of Camdeboo standard. For this extra effort these agents earn commission as always (but obviously the commission, which is percentage based, is more because the Camdeboo clips earns higher prices).

Furthermore, to avoid the general monopoly that the two top-makers in the world enjoy regarding prices paid, Camdeboo Mohair has also sought to have Camdeboo Mohair clips processed on commission. This has proved rather difficult in that these top-makers prefer to own the mohair that is processed. However, negotiations have been undertaken that the mohair is processed on commission and Camdeboo Mohair has then directly negotiated with several fabric manufacturing firms and final designers regarding the final presentation of the product. Thus, several activities have been undertaken to move Camdeboo Mohair through the value-chain whilst retaining ownership of the clip until final product manufacture.

This process has not been undertaken with the entire clip due to the difficulty in negotiating fibre processing on commission. However, it is the aim of Camdeboo Mohair to channel more of the clip through this process, so that higher values of the final product can be returned to the original product producers. To affect this, the business form of the company will soon be changing to include shareholding by the producers. In this way a dividend could be paid to farmers based on the values attained for the final high-end exclusive products.

The general mohair value-chain is shown in Figure 2 below. Please note that this is the same value-chain use by Camdeboo Mohair, however in the case of Camdeboo Mohair certain activities and contracts along the chain are driven personally by Camdeboo Directors to ensure that the final product is utilised in only pre-determined products

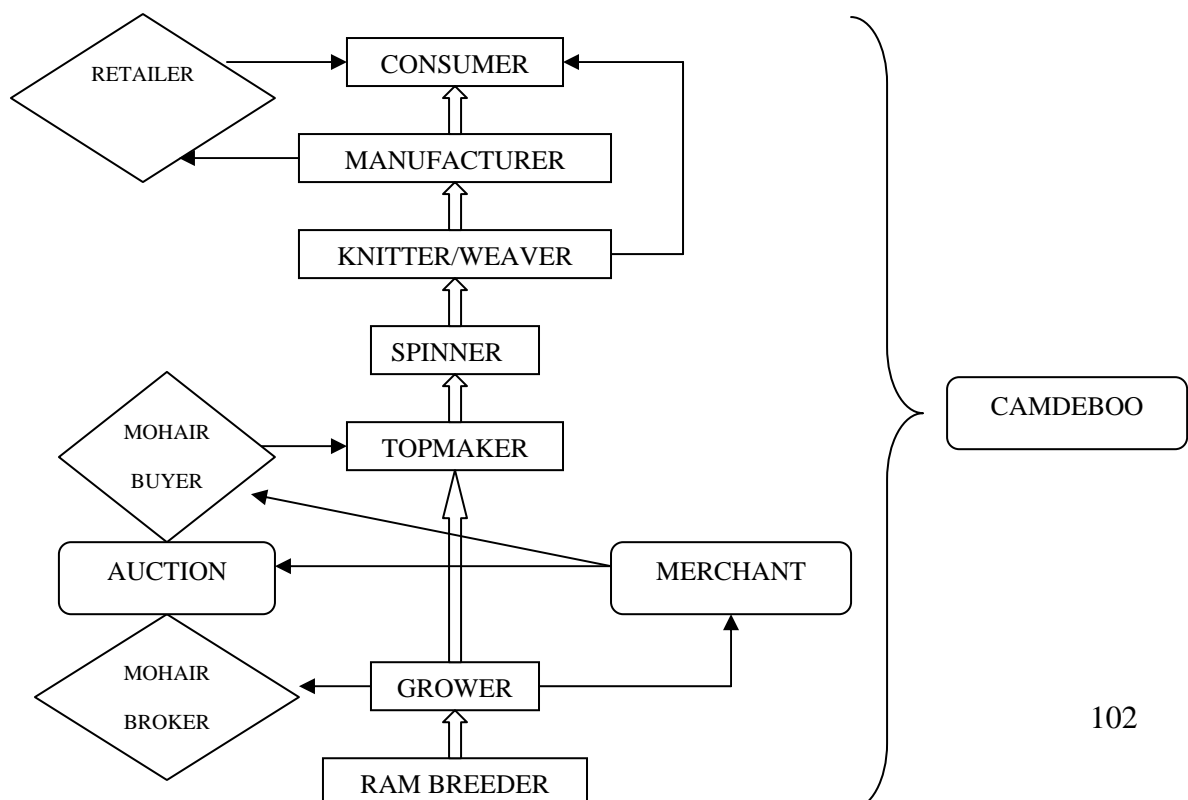


Figure 2: Mohair supply chain

2.4 Ownership structure surrounding the indication and existing attempts to register ownership

Camdeboo Mohair is a registered company under South African law. The Camdeboo trademark has been registered in the most important markets for Camdeboo Mohair. The company is moving towards shareholding for its members so that profit-sharing can take place.

2.5 Existing certification bodies within the indication

Currently the Wool Testing Bureau tests and certifies the quality of all wool and mohair offered for sale in South Africa, and CMW and BKB verifies the methodology used to present the clip for sale. However, CMW and BKB agents are also licensed to verify that the clips that are of Camdeboo standard can be labelled with a “C” when baled and transported to the auction floor. Thus, a verification and certification process is in place.

2.6 External support

No external support has been forthcoming in establishing and growing the Camdeboo Mohair Company or building the reputation and brand. This process has been wholly driven and financed from within the company.

CONCLUSION

In conclusion, the question should be asked whether this industry would benefit from a GI initiative? It is the opinion of the authors that Camdeboo Mohair has all the elements of a G.I. It is a differentiated, quality, unique product with geographic, biological and human elements (none of which can be seen in isolation), a level of collective action exists and the capacity to drive the initiative could be created. The fact that there has already been an instance where the brand name has been imitated (Mr Paul Michau – personal communication) is evidence that the current IP protection regime in South Africa, utilizing a registered company and registered trade mark, may be inadequate to ensure international protection for this truly unique South African product.

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F. KAROO LAMB CASE STUDY

1. Introduction: Making the case for investigating Karoo Lamb as a potential GI

Windmills, sheep, farm homesteads, endless vistas, home-baked bread, hospitable evenings ... these images are engrained in the minds of many South Africans when they think of the Karoo. Because of these images, and the tranquillity and honesty of the Karoo way of life, the “Karoo” concept has become synonymous with quality, tradition and wholesomeness. The reputation for quality which is embedded in words such as ‘Karoo’ has significant marketing potential and is as such already sought after by producers often with little or no link to the region.

The Karoo covers almost 50% of the total area of South Africa and is sparsely populated, far away from major urban and distribution centres. This lonely corner of the earth is home to one of South Africa's living treasures: flocks of sheep, grazing freely amongst the scattered shrubs. Karoo shrubs are palatable and meet the nutritional needs of the grazing animals year round (Le Roux, Kotze, Nel & Glen, 1994). Their meat is spiced on the hoof and described as “mouth-wateringly succulent, imbued with the subtle, fragrant flavours of the Karoo bush”. It's not surprising - they feed on wild herbs, thousands of different species of them, where normally sheep live on one type of grass. It's a most exquisite lamb, and it is the world-renowned free-range Karoo lamb.

It is widely argued that the bushes in the Karoo are providing this taste (e.g by Estler, Milton and Dean, 2006). However, perhaps it's the way the farmers finish the animals in free-range environments. It is still not scientifically established what the difference is and very few people have discovered the secret, but as some people argue, “my palate knows the difference”. By all accounts most chefs agree that we have something special in Karoo lamb.

The production area

The great semi-arid area stretching North-eastwards from the Cape is called the Karoo. Typically, it is flat dry shrubland with grass-growth restricted to the moistness of the occasional mountain ranges. Rainfall is sporadic, less than 500 mm a year, in some places a great deal less. Periods of drought last for several years, affecting the region and its plant growth. Notable droughts occurred in the periods 1919-31, 1944-49 and 1962-73.

Apart from Karoo lamb the vast region of the Karoo produces little else of note. Total gross income from agriculture in the Central Karoo District Municipality (roughly presenting the Karoo region) in 2002 was R147,9 million with sheep providing the largest share (54%), followed by animal products such as wool or mohair (22%).

Production processes

The farming system of a typical Karoo sheep farmer is an extensive and low-input system in area with very low grazing capacity. The natural pasture varies from mixed grass and shrub veld to Karoo shrub veld and is described by Acocks (1988) as arid Karoo. The official grazing capacity norm in most of the areas is estimated at 35 ha per large stock unit. The climate is characterised by severe winters and hot summers.

Windmills and wire fencing entered the farming practices of the north-eastern Karoo in the final decades of the nineteenth century. A new grazing system came into being comprising artificial water sources and camps in which sheep and other livestock ranged freely. By the late 1920s this had displaced the old shepherding-plus-kraaling arrangements. At the time, the coming of the new methods was predicted to raise stocking rates, improve veld cover and lessen soil erosion.

Most of the farmers producing Karoo Lamb operate farms in excess of 1 000 ha and flock sizes above 200 ewes. Ram and ewe lambs are usually sold to registered abattoirs as soon as they reached a body weight of approximately 30 - 40 kg. These abattoirs have links with meat distributors/wholesalers that sell into the retail and catering trade.

Production is virtually organic except for minor doses for typical sheep disease such as blue tongue, etc. Karoo lamb is marketed straight from the field and no additional feed is provided. Sheep that is sent to a feed lot to be fattened do not have the same taste and loses the particularly taste.

There is however some debate whether the particular taste is only to be found in the Dorper breed or in the Dohne merino breed. The additional debate is whether certain bushes contribute to the specific taste which then makes the demarcation of the production region so critical. The demarcation of the Karoo region was therefore a major issue at the start of the case study and had to be cleared with all stakeholders by using scientific evidence, mainly based on the vegetative- and soil classification, as a basis for the Karoo map.

The product and its existing reputation (exposure of the product)

Sheep is produced in most regions of South Africa, except for the far northern areas. Since South African sheep is usually produced on natural pastures and in arid areas, certain breeds have been specifically bred for arid areas, such as the Karoo region renowned for its high quality mutton. The two most important sheep breeds (mutton) in South Africa are the Dorper and Merino breeds (SAMIC, s.a.)

The Dorper breed, a white-bodied sheep with a black head, was developed in the 1940's in the Karoo region of South Africa by crossing the imported Blackhead Persian (a fat-rumped hair breed that is adapted to harsh arid environmental conditions) and the British Dorset Horn (Snowder & Duckett, 2003:368). Currently the Dorper breed is the second largest breed in South Africa and has spread throughout the world. A live weight of about 36 kg can be achieved by the Dorper lamb at the age of 90-120 days (3-4 months), with carcass weight of approximately 16 kg (Breeds of livestock, 1999:1).

The South African Mutton Merino is a dual-purpose (mutton and wool) sheep breed, which was developed from an imported German Merino breed. It has adapted to most environmental conditions of South Africa. It is bred specifically to produce a slaughter lamb at an early age (35 kg at 100 days of age) but still being able to produce good volumes (4 kg) of medium to strong wool (Breeds of livestock, 1999:1). The breed is characterised by a high growth rate and produces slaughter lambs with good meat quality attributes (Neser, Erasmus & Van Wyk, 2000:172).

In South Africa carcasses are classified according to age and fat class (National Department of Agricultural, Product Standards ACT No. 119 of 1990, and its regulations). Age is described according to the number of permanent incisors with age class A = 0 teeth, AB = 1-2 teeth, B = 3-6 teeth and C = more than 6 teeth, while carcasses are grouped into seven fat classes by means of visual appraisal of subcutaneous fat (SCF) (fatness class 0 = less than 1.0 % SCF, to fat class 6 = more than 17.6 % SCF, excessively over fat).

At present there is no existing scientific literature on the sensory qualities of Karoo lamb and/or mutton. As noted earlier Karoo lamb/mutton has become associated with a unique and desirable flavour, being described as much sought after. In order to protect the geographical name of the Karoo, as well as the indigenous resources associated with Karoo lamb/mutton, the potential exists for the establishment of a geographical indication based on the reputation of quality and flavour in combination with the nostalgia generated by the perception of the Karoo region. However, it is critical to establish whether the perceived aroma and taste

differences between Karoo lamb/mutton and lamb/mutton from other regions are scientifically measurable.

The product 'Karoo Lamb' has been part of South African culture for more than a hundred years. It is part of the 'Afrikaner' and also 'Cape' cuisine and many regions and towns in the Karoo market their towns and restaurants and guest houses as 'the home of Karoo Lamb'. On the menu of most of the restaurants and guest houses in the Western Cape and Northern Cape you will notice the various dishes made from 'Karoo Lamb'. With many Afrikaners being urbanized over the last 40 years and the connection to rural South Africa being diminished, the nostalgia around the traditional Afrikaner ways of living is in a way satisfied through the association with Karoo Lamb and having a nice typical 'braai' with a few good friends.

There is thus a strong geographical as well as cultural link in the 'Karoo Lamb' concept. However there is no insignia, no certification and no guarantee that the product is truly originating from the Karoo when it is sold as 'Karoo Lamb'. It is only one retail chain (Woolworths) that has a strict certification system whereby they guarantee the free range nature and the Karoo region of origin of the lamb and mutton sold in their stores.

This case is really about reputation and image of a product that has the danger of usurpation and misleading of consumers. There also exist a potential to really improve the price and returns of Karoo Lamb production through proper marketing, distribution and collective certification.

2. The research process and objectives

This case study presented specific challenges to our research team. Since the Karoo region is so vast and diverse there is hardly any sign of collective structures that do joint marketing or advertising. Farmers are typically organized in district farmers' unions and many of the producers of Karoo Lamb are members of the Red Meat Producers Organization (RPO) of the relevant province (Northern Cape, Western Cape or Eastern Cape) and also of the national organization. The RPO is more a lobby organization concerned with government policy matters, animal health, prices, standards and general market issues. There is no collective system or structure to promote Karoo Lamb as a unique product with a certain typicity and reputation. Perhaps because producers argue that they do not work together that well or that it is too much effort for a rather small price premium. There is also no collective system of quality management and certification of Karoo Lamb. Consumers rely to a large extent on the word of the butcher/retailer or the restaurateur. Having lamb in a restaurant in a Karoo town is often a true guarantee that you are having the 'real McCoy'.

After the case study was selected by our Steering Committee we had a first meeting to test stakeholders' interest in pursuing the protection of the Karoo name to prevent misuse of the name by food companies at their expense. This meeting took place on 7 August 2006 on the farm Dombietersfontein near Victoria West in the Northern Cape and, in addition to the project team, was attended by 14 local farmers, 3 individuals in the downstream chain, as well as representatives from the Provincial Departments of Agriculture in the Western Cape. There was a huge interest in our initiative and it was decided by the farmers that they would like more information on the following issues:

1. Definition of the Karoo.
2. The nature of the Karoo reputation.
3. Description of the product and how to produce it.
4. The link between the area and the product.

However, of major concern was that there was not one organisation that could take ownership of the Karoo Lamb name and that the farmers subsequently requested the project team to continue leading with the project.

As a result of these priorities identified by Karoo inhabitants the research endeavours of this case study essentially focused a number of key issues which in most cases involved many of the stakeholders in the Karoo Lamb supply chain in the Karoo region:

1. Establishing the value and reputation of the 'Karoo' name and the current trademarks using the word
2. Demarcating the Karoo region through a combination of political and veld type boundaries
3. Agreeing with producers on the code of farm practices that would constitute Karoo Lamb.
4. Establishing the sensory attributes as well as consumer perceptions of Karoo Lamb and its link with the region of origin. In order to scientifically test the 'taste' reputation of Karoo Lamb and to determine whether there is a demand amongst consumers we embarked on a number of studies (again illustrating the combination between biological and consumer sciences) to verify the economic value of the product. The purpose of the sensorial analysis as well as the chemical analysis (of meat and scrubs) was to compare the fatty acid profiles, sensory attributes and cooking-related properties of *M. semimembranosus* (leg), cooked according to a moist heat cooking method, of Age B mutton from fat class 3-4 of Dorper and Merino from the Karoo with that from other production areas using quantitative descriptive analysis. The main purpose was therefore to determine whether there is any link between the grazing in the region and the chemical compounds in the fatty acid and thereby to confirm the notion that the lamb produced in the Karoo region is different (in terms of sensory attributes) than lamb produced in other regions of the country.
5. Establish the reputation of the Karoo by analyzing consumer perception. Here the main objectives were to establish consumers' awareness and perceptions of South African mutton and to measure consumers' degree of appreciation of mutton linked to the geographical production origin of the meat. This was not a willingness to pay study but a survey only to test consumer perceptions and general awareness to form an indication of the 'reputation' of the product.

The initial meeting was followed by a number of subsequent meetings and it was interesting to note that, as the case study continued, a number of additional role-players became interested. These additional interested parties could be categorised into three groups:

1. Current inhabitants of the Karoo
2. Previous inhabitants of the Karoo that left the region but currently has part-time interests.
3. Individuals and / or organisations with administrative or research interests in the Karoo Region. Significant in this group is representatives of three Provincial Departments of Agriculture (Eastern Cape, Northern Cape and Western Cape) as well as the Institute for Development Support at the University of the Free State and the Agricultural Processors Association of South Africa.

The second meeting took place on 12 June 2007 at Meltonwold farm, also near Victoria West. The purpose of this meeting was to provide a progress report on the various issues identified at the first meeting as well as to discuss certain key issues with the inhabitants. Amongst these issues was creating consensus on the plants to be used in the sensory analysis, the

demarcation of the Karoo region (see Section 4) as well as the issue of ownership of the Karoo name.

The third, and to date the last meeting of the case study was held on 9 November at the Wagon Wheel Inn near Beaufort West with the objective of reporting the results of the project to the interested parties. The main elements of agreement at this meeting were the:

1. Demarcation of the Karoo Region.
2. Significance of the Perception Survey.
3. Significance of the Sensory Analysis.
4. Need for the protection and development of an “owner” of the Karoo Lamb name. However it was indicated that due cognisance must be taken of existing potentially conflicting interests.
5. Need for a basic set of production principles associated with the Karoo Lamb name.

This discussion illustrates that this case study focused on the scientific testing of the specificity and reputation of the product to determine the real potential for a GI-type IP regime and thereby hopefully unleash considerable economic potential for a generally arid and impoverished region.

3. “Karoo” as a marketing asset

In order to investigate the possibility of registering KAROO LAMB as a certification or collective trade mark, a search was conducted at the South African Registry Office. The search brought to light the following trade mark applications/ registrations⁷ which consist of or include the words KAROO LAMB. The search was conducted in class 29 of the Nice International Classification system which includes the following goods: “*Meat, fish, poultry and game; meat extracts, preserved, dried and cooked fruits and vegetables; jellies, jams, compotes; eggs, milk and milk products; edible oils and fats*”.

The existence of these marks is likely to pose an obstacle to the registrability of KAROO LAMB as a certification or collective trade mark. Of particular interest are the marks KAROO LAMB FREE RANGE PRIME QUALITY and DOORNBULT KAROO LAMB.

⁷ A search at the Registry Office only reflect marks which have been advertised for opposition or which have already proceeded to registration.

Table 1: Trade mark applications/registrations containing the word Karoo

| TRADE MARK | DISCLAIMER | PROPRIETOR | FILING DATE | STATUS | NICE INTERNATIONAL CLASSIFICATION |
|-------------------------------------|---|---|------------------|------------|--|
| KAROO | None | Tiger Food Brands Intellectual Property Holding Company (Pty) Limited | 22 December 1977 | registered | Class 29: Fish, preserved, dried and cooked fruits and vegetables; jellies, jams, eggs |
| KAROO | Registration shall give no right to the exclusive use of the word KAROO | Foodcorp (Pty) Limited | 16 March 1983 | registered | Class 29: Meat and meat products, poultry and game included in this class |
| DOORNBULT KAROO LAMB | Mark only to be used with respect to lamb and mutton originating in the Karoo | Econotech CC | 13 January 1995 | registered | Class 29: Meat and meat extract, meat products |
| KAROO GOLD | Registration shall give no right to the exclusive use of the word KAROO | Andrew Meintjies Conroy | 19 August 1998 | registered | Class 29: Processed meats, meat, game, poultry and meat extracts |
| KAROO LAMB FREE RANGE PRIME QUALITY | Registration shall give no right to the exclusive use of the word KAROO | Klein Karoo International (Pty) Limited | 20 February 2007 | Advertised | Class 29: Meat, meat extracts and meat jellies |

In the case of KAROO LAMB FREE RANGE PRIME QUALITY, exclusive rights to the name KAROO have been disclaimed but no disclaimer entered with respect to KAROO LAMB. The South African Trade Marks Act however, provides in section 10 for the possibility to refuse/remove a mark based on, amongst others, that the mark is inherently deceptive or that its use is likely to deceive or cause confusion. Based on this provision it will be possible for interested parties to bring expungement proceedings to have the mark KAROO LAMB FREE RANGE PRIME QUALITY removed from the Register, as the mark is used with respect to lamb originating in regions other than the Karoo and is therefore deceptive and misleading.

In the case of DOORNBULT KAROO LAMB the mark has been endorsed with a limitation to the effect that it may only be used with respect to lamb and mutton originating in the Karoo. Use of this mark in accordance with its endorsement would therefore, not be considered misleading. Having this mark expunged may, therefore, prove more difficult, unless it hasn't been used for a consecutive period of 5 years. A more likely option would be to explore the possibility of approaching the Registrar for a disclaimer with respect to exclusive rights to the words KAROO LAMB. Given the descriptive nature of these words, such a request is unlikely to be refused.

This survey together with the fact that two retailers (Woolworths and Shoprite) use the Karoo origin as a marketing tool in their sheep meat campaigns clearly illustrate the market value of the Karoo name and region. There are also many illustrations of how entrepreneurs in the Karoo towns are marketing Karoo Lamb (see the Pictures below). There is therefore clearly a value in this origin based product that could be exploited and which should be protected.



There is however many cases where the name Karoo is used with no confirmed link with the Karoo region or at least no guarantee that the product originates from the Karoo. One example of such misappropriation is the label below of a chicken dish manufactured in Gauteng and clearly misleading the consumer but at the same time 'ploughing' with the image of the Karoo to sell the product. (Note also the Chicken Provençale in the picture).



4. Where is the “Karoo”?

As indicated earlier the task of demarcating the Karoo region has been fairly contentious and required several engagements with farmers, botanists and officials from the Department of Agriculture. At the first meeting with interested parties (see Section 2) the Project Team received the mandate to define the Karoo Region. Based on this mandate a map of the Karoo was prepared by the Geographic Information System (GIS) Team, and specifically Mr Mike Wallace, of the Western Cape Department of Agriculture and presented at the second meeting. The boundaries of the Karoo in this map were defined as follows:

1. The Western and Southern border of the Karoo was defined by the boundary between the winter and summer rainfall areas of South Africa (Schultze, 1997).
2. The Northern border was defined by the Gariep River (SIRI, 1987).
3. The Eastern border was defined by the Winterberg mountain ranges (SIRI, 1987).

The comments received from the interested parties at this second meeting was that, as the unique characteristics of Karoo Lamb is the result of specific plant species, vegetation and veldt type should be used to define the Karoo Region. Further, in order to ease administration, it was decided to overlay Municipal Boundaries.

During the discussion at the same meeting and following subsequent inputs from especially the veldt scientists of the Northern Cape Department of Agriculture, a selection of six key plants were selected that are the most common and contribute according to folklore the most to the specific taste of the Karoo. As they say: “You know when you are in the Karoo”! These plants are *Plinthus karrooicus* (“Silverkaroo”), *Penzia spinescens* (“Skaapbossie”), *Eriocephalus ericoides* (“Kapokbossie”), *Salsola glabrescens* (“Rivierganna”), *Pentzia incana* (“Ankerkaroo”) and *Pieronnia glauca / rosenia humilis* (“Perdebos”). It is significant to note that the same plants were used in the sensory analysis as described in Section 6.

For the purpose of the second draft of the map the most recent vegetation data in South Africa (Mucina and Rutherford, 2006) was used. This was overlaid with the political boundaries of the various Municipalities (Demarcation Board, 2006). The resulting Municipalities in which some of the shrubs occur at least partially are presented in Table 2.

Table 2: Municipalities in which some of the identified Karoo Bushes occur

| NAME | TYPE | PROVINCE | DISTRICT | Area (km ²) |
|-----------------|------|--------------|----------|-------------------------|
| Camdeboo | B | Eastern Cape | DC10 | 7230 |
| Blue Crane | B | Eastern Cape | DC10 | 9836 |
| Ikwezi | B | Eastern Cape | DC10 | 4453 |
| Baviaans | B | Eastern Cape | DC10 | 7727 |
| Inxuba Yethemba | B | Eastern Cape | DC13 | 11592 |
| Tsolwana | B | Eastern Cape | DC13 | 6025 |

| | | | | |
|----------------|-----|---------------|------|-------|
| Inkwanca | B | Eastern Cape | DC13 | 3584 |
| Maletswai | B | Eastern Cape | DC14 | 4358 |
| Gariep | B | Eastern Cape | DC14 | 8911 |
| ECDMA10 | DMA | Eastern Cape | DC10 | 13280 |
| ECDMA13 | DMA | Eastern Cape | DC13 | 133 |
| Letsemeng | B | Free State | DC16 | 10225 |
| Kopanong | B | Free State | DC16 | 15248 |
| Mohokare | B | Free State | DC16 | 8776 |
| Tokolologo | B | Free State | DC18 | 9326 |
| Nama Khoi | B | Northern Cape | DC6 | 15025 |
| Kamiesberg | B | Northern Cape | DC6 | 11742 |
| Hantam | B | Northern Cape | DC6 | 27968 |
| Karoo Hoogland | B | Northern Cape | DC6 | 29397 |
| KhΓi-Ma | B | Northern Cape | DC6 | 8332 |
| Ubuntu | B | Northern Cape | DC7 | 20389 |
| Umsobomvu | B | Northern Cape | DC7 | 6819 |
| Emthanjeni | B | Northern Cape | DC7 | 11390 |
| Kareeberg | B | Northern Cape | DC7 | 17702 |
| Renosterberg | B | Northern Cape | DC7 | 5527 |
| Thembelihle | B | Northern Cape | DC7 | 6980 |
| Siyathemba | B | Northern Cape | DC7 | 8209 |
| Siyancuma | B | Northern Cape | DC7 | 10024 |
| Kai !Garib | B | Northern Cape | DC8 | 7446 |
| //Khara Hais | B | Northern Cape | DC8 | 3444 |
| !Kheis | B | Northern Cape | DC8 | 6436 |
| Sol Plaatjie | B | Northern Cape | DC9 | 1877 |
| NCDMA06 | DMA | Northern Cape | DC6 | 24764 |
| NCDMA07 | DMA | Northern Cape | DC7 | 15687 |
| NCDMA08 | DMA | Northern Cape | DC8 | 65103 |
| Laingsburg | B | Western Cape | DC5 | 8784 |
| Prince Albert | B | Western Cape | DC5 | 8153 |
| Beaufort West | B | Western Cape | DC5 | 16330 |
| WCDMA05 | DMA | Western Cape | DC5 | 5587 |

As a result of this process two major problems were encountered:

1. The occurrence of the six plant species are not only limited to the Karoo, but it occurs naturally in large parts of the Free State as well as Namibia.
2. In some instances the plants occur only in a small part of a Municipality.

Nevertheless, the resulting map (see figure 1 annexure 6) was subsequently tabled at the third meeting with interested parties. During this meeting the following decisions were taken:

1. The process and demarcation was accepted as in-principle sound.
2. Although a specific farm may fall within one of the Municipalities listed in Table 2, the farmer will still have to prove that at least one of the identified Karoo bushes actually grows on the farm. This requirement will be included in the product description.
3. The exclusion of NCDMA 08, Tokologo, Kopanong, Mohokare, Inckwanca, Nama Khoi and Kamiesberg Local Municipalities should be considered.

5. The code of practice constituting “Karoo Lamb”

The producers and some abattoirs in the Karoo region were tasked to draft the code of practices and the auditing process that could use to certify lamb or mutton origination from the Karoo.

Code of practice

The code of practice for Karoo Lamb producers link very closely to the code of practice of food stockman ship and animal welfare but include specific practices to ensure the unique characteristics of the final product:

Only animals originating from the Karoo or animals that remained in the Karoo (as defined in Section 4) at least 12 months before slaughter that are free of scheduled diseases should be used.

Animals should have free access to natural veldt grazing and may have additional but simultaneous free access to farm feeds containing cereals, silage or any other natural plant matter. No animal products or by-products may be given, irrespective of the classification in terms of Act 36 of 1947.

Transportation of livestock must be in accordance with regulatory procedures as laid down in the livestock protection act. Trucks should not be overloaded and all vehicles should be well maintained and to be constructed with no physical protrusion, e.g. hinges and latches are recessed, no bolts left protruding.

In terms of the natural veld grazing and water a number of key points are specified:

- Water sources are capable of supplying sufficient amounts of cold, fresh and clean water to meet the requirements of drinking animals. Water points should be clean and free of excessive mud in and around water troughs
- Camp stocking rates should be such that it ensures that the natural environment and general plan condition and density are not adversely affected. High pressure points (water troughs, lick bins, etc) are managed to minimize damage caused by trampling.
- Natural veldt grazing should be rested from time to time to ensure optimum growth and production.
- Fences and gates are maintained in good working order.
- Supplementary feeding is permitted during times of drought in order to protect damage to the natural grazing.

Auditing schedule

The South African Meat Industry Company (SAMIC) already performs a number of inspection and certification process for the red meat industry in South Africa. If the Karoo producers eventually decide to go the route of a GI or a certification mark for Karoo Lamb then it is logical to task SAMIC to perform these official audits.

The facilities to be audited on a regular basis include:

- Abattoir
- Cutting Plant
- Retail Stores

Audits will be conducted according to the following schedule:

- APU's will be audited at application.

- Abattoir will be audited according to HACCP system
- Cutting Plant will be audited according to HACCP system
- 25 % of all retail stores will be audited annually according to the brand protocol.

If any major deviations, which will have a direct influence on the product, are found at any of the facilities (Abattoir, Cutting Plant or Retail Stores) it will be delisted and re-evaluated within one month for reapproval after deviations were corrected. If a minor deviation is found at any of the facilities, it will be addressed by issuing a Corrective/Preventative Action Request.

SAMIC will also perform audits at farm level and will also be involved in certifying producers to be certified as accredited suppliers of Karoo Lamb. These producers should be in the identified municipalities, do adhere to the practices identified above and also have sufficient numbers of the relevant plants on their farms.

6. The link between sensory attributes of Karoo Lamb and the region of origin

Reputation is a shared asset determined by the product's historical presence in the region, product specificity and consumers' perceptions that could be determined on a local, national or international basis (Barjolle & Sylvander, 2002). The potential product specificity of Karoo lamb relates specifically to the unique flavour of the meat, associated with the Karoo grazing plants eaten by the sheep. Thus, in order to establish the product specificity of Karoo lamb and mutton it was critical to apply sound scientific methodologies in order to:

- Determine if there is a sensory detectable difference between the two main sheep breeds, namely Merino and Dorper, within a region,
- To ascertain if there is a significant sensory detectable difference between mutton produced in the different Karoo regions,
- Determine whether there is a sensory detectable difference between mutton produced in the Karoo region compared to mutton produced in a different area in South Africa namely Free State and a neighboring country (available in the South African fresh meat trade), Namibia.
- Analyse the fatty acid profile of mutton produced in the Karoo region compared to mutton produced in Namibia, as well as indigenous plants traditionally linked to the unique flavour compounds in mutton from the Karoo region.

The ARC Sensory Analysis Unit was tasked to evaluate the flavour attributes of mutton from the Karoo region.

6.1 Research methodology

According to the Department of Agriculture (2005) the national sheep herd as a percentage per region is as follows: Eastern Cape: 30 %; Northern Cape: 26 %; Free State: 20 %; Western Cape: 11 %; Mapumalanga: 7 %; Kwazulu-Natal: 3 %; North West: 3%. Intact leg samples of Merino and Dorper mutton from De Aar (Northern Cape), Carnarvon (Northern Cape), Kalahari (Northern Cape), Free State and Namibia were procured of a similar fatness level (fat code 2). Panellists were carefully selected and trained to assess the flavour and texture attributes and to develop descriptive terminology for describing the different Karoo lamb samples.

The panellists were trained on the mutton samples from the different regions and were exposed to the grazing plants eaten by sheep in the Karoo region. The grazing plants were selected based on the recommendation made by Tommy Buis of the Department of Agriculture in the Northern Cape i.e. Carnarvon from a study they performed based on

physical stomach content of sheep from this region. The grazing plant selected based in order of volume present were: *Plnthus karrooicus* (“Silverkaroo”⁸), *Penzia spinescens* (“Skaapbossie”), *Eriocephalus ericoides* (“Kapokbossie”), *Salsola glabrescens* (“Rivierganna”), *Pentzia incana* (“Ankerkaroo”) and *Pieronia glauca* / *rosenia humilis* (“Perdebos”). A ‘tea’ was brewed with tips and fine twigs of the grazing plants and was served hot to the panel, who developed descriptive terms to describe the flavour of each plant.

The *M. Semimembranosus* muscle was dissected of each cooked leg cut, cut into cubes and served wrapped in three-digit coded foil squares and presented to the panel under red-light conditions in individual sensory booths. Samples were evaluated on an 8-point category scale ranging from 1 = none to 8 = extreme. Eight replications were applied to ensure reliability of the data.

Both the fatty acid profiles and Conjugated Linoleic Acid (CLA) content of the cooked meat as captured from the cooking losses (separated fat only) and the Karoo shrubs (leaves and thin twigs) were analysed by the ARC accredited analytical laboratory.

6.2 Results and discussion

Trained panel sensory analysis

The results showed that the grazing plants from the Karoo and Karoo-like regions could impart herbal and musty flavour attributes to mutton meat from sheep breeds of these regions. The herbal attribute was found to contribute positively to the cooked flavour of the meat and the musty flavour attribute contributed negatively to the cooked flavour of the meat. A 2-way ANOVA was performed with breed and region as the main effects and indicated no significant differences between the Merino and Dorper breeds. The ANOVA of the combined sensory data per region indicated significant differences between the different regions.

To further investigate this finding Principal Component Analysis (PCA) was applied to identify the attributes that differentiate the most between the mutton samples (see Figures 2 and 3). PC1 and PC2 explained 93 % of the total variation in the data. The PCA indicated that mutton from the De Aar region was most intense in the herbal component, although not significantly so according to ANOVA, and had a slightly coarser texture that was not very tender. Mutton from the Namibia region was most intense in the musty flavour component with a slightly more tender texture. Mutton from the Carnarvon and Kalahari regions, which are situated in the heart of the Karoo, differed only slightly from mutton from Namibia and mutton from De Aar regions, respectively. However, these differences were not very distinct. The mutton from Carnarvon and Kalahari had a fairly intense mutton aroma and flavour and both the herbal and musty attributes were present in the meat. Some textural differences were found between the breeds and regions.

With regard to the sensory profiles of mutton from the Karoo region (Carnarvon, De Aar and Kalahari), definite flavour characteristics were present in the meat which can only be due to grazing plants in these areas that are consumed by sheep. However, this was not significantly different to mutton from adjacent Free State quite possibly due to the distribution of the Karoo scrubs crossing the regional boundaries between the Karoo and adjacent Free State regions (refer to Figure 4 for detail). Based on the PCA, Namibian sheep meat grouped separate from meat originating from all the Karoo-like regions.

⁸ The terms in brackets are the common names for these shrubs; “Bossie” is the Afrikaans terms for shrub.

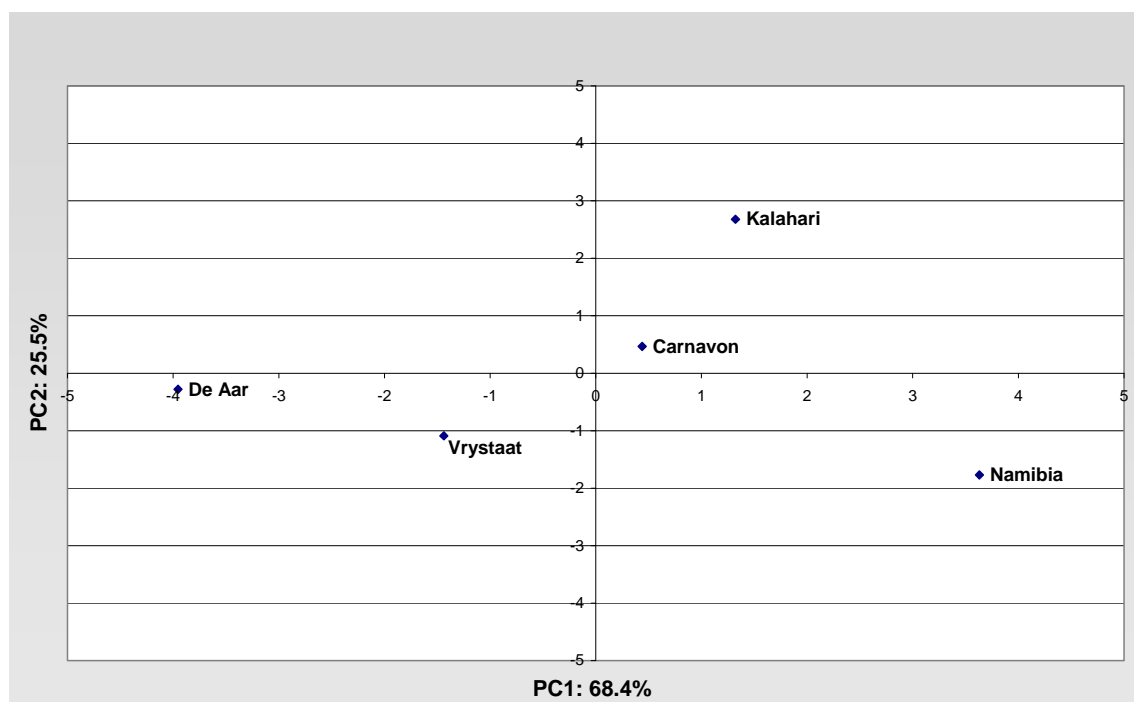


Figure 2: Graphical representation of the PC-scores of the mutton samples

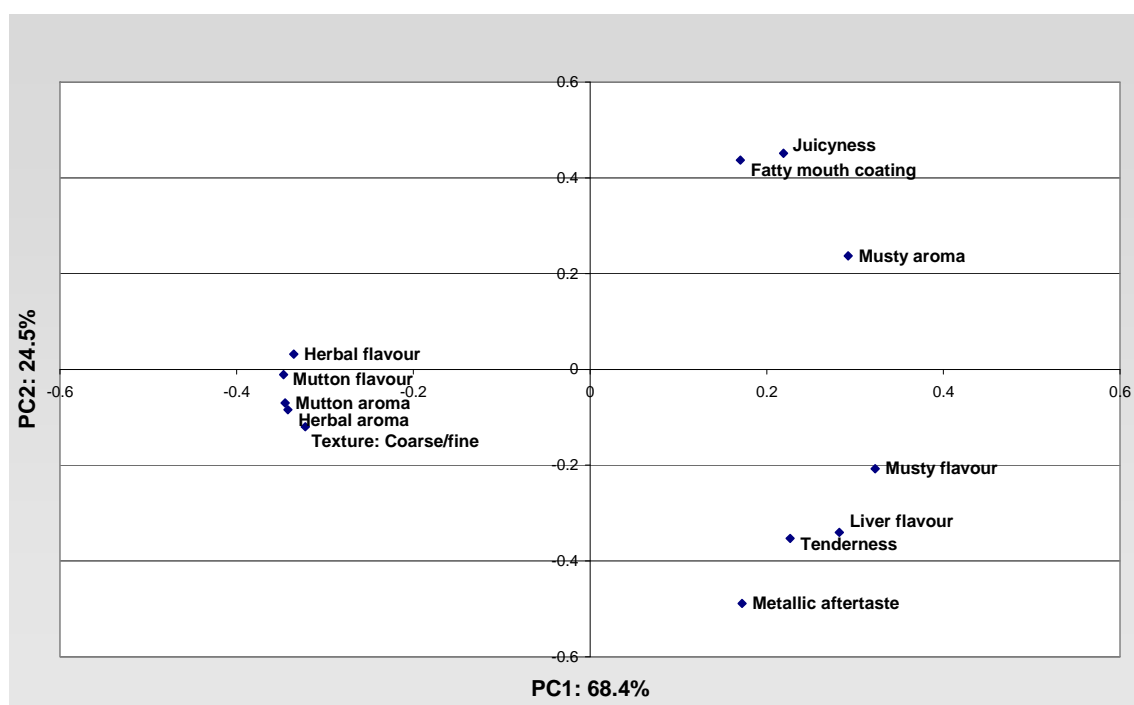


Figure 3: Graphical representation of the main attributes identified in the PCA that discriminated between the mutton samples

Chemical fatty acid analysis

CLA is a component found in the fat of grass-fed ruminants. New research indicates a link between CLA and the prevention of chronic diseases. More than 80% of South African lamb and mutton are extensively produced on pasture, thereby increasing the natural occurrence of CLA. Table 3 contains a summary of the dietary fats present in the sheep meat samples analysed within this project.

Although present in significant amounts in all the mutton fat and grazing plants studied, no direct significant link could be found between a particular fatty acid (including CLA) in a grazing plant with a particular sensory attribute in the mutton from a particular region. This highlights the complexity of flavour compounds in mutton and warrants further investigation with more sophisticated technology, perhaps not within the scope of this study.

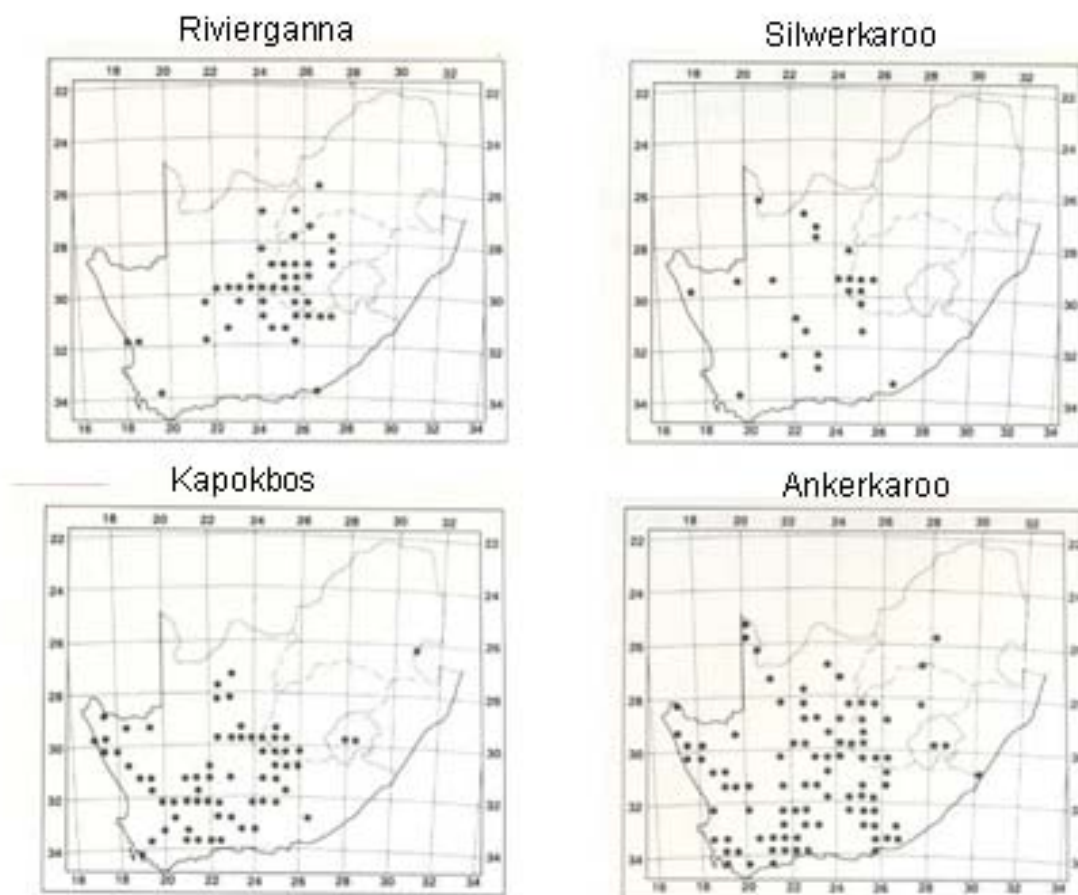


Figure 4: Geographical distribution of selected important Karoo scrubs
(Source: Le Roux, Kotze, Nel & Glen, 1994)

Table 3: Summary of dietary fats in South African mutton (g/100g)

| Fatty acid analysis: | Fat: | Mutton: |
|---|--------------|----------------|
| Saturated fatty acids | 52.43 | 4.57 |
| Mono-unsaturated fatty acids | 43.87 | 3.67 |
| of which <i>trans</i> -fatty acids | 2.572 | 0.203 |
| n of which <i>cis</i> -fatty acids | 37.54 | 3.198 |
| Poly-unsaturated fatty acids of | 3.07 | 0.34 |
| which <i>trans</i> -fatty acids of which <i>cis</i> - | 0.462 | 0.036 |
| fatty acids | 1.869 | 0.171 |
| Calculated total: | 99.37 | 8.58 |
| Total <i>trans</i> -fatty acids | 3.034 | 0.239 |
| Total <i>cis</i> -fatty acids | 39.410 | 3.375 |
| Omega-6 fatty acids | 0.387 | 0.258 |
| Omega-3 fatty acids | 0.983 | 0.080 |
| CLA content (9ct11-C18:2) | 0.561 | 0.047 |

7. The reputation of Karoo lamb: Consumers' perceptions

As mentioned earlier, in addition to product specificity, another important determinant of a product's reputation involves consumers' perceptions on a local, national or international basis. Thus, in order to develop further evidence towards establishing the reputation of Karoo lamb consumer research was undertaken on a national level to investigate consumers' awareness and perceptions of Karoo lamb and to estimate the demand for Karoo lamb and consumers' willingness to pay (WTP) for the product.

7.1 Research methodology

The sample consisted of sheep meat purchasers and consumers from all races belonging to LSM (Living Standard Measures) groups 8, 9 and 10 in Gauteng and the Western Cape provinces of South Africa. Different racial groups were included in the study since the traditional Karoo culture was expected to be associated more with the white and coloured consumers and less with black consumers. The wealthy consumer segments were targeted given the fact that sheep meat is the most expensive type of red meat commonly purchased by consumers in South Africa. Gauteng and Western Cape were selected for the study given their dominance in the South African economy and the differences in proximity to the Karoo region. No specific age requirements were specified for the consumer sample. A combination of convenience and random sampling were employed to interview 120 consumers in each province through a combination of personal interviews and self-completion questionnaires. The research instrument of choice was a questionnaire containing a combination of open and closed questions (refer to Appendix B for a copy of the questionnaire). The questionnaire covered the following aspects:

- Demographic information;
- Basic questions on the purchasing, consumption and affordability of various meat types;
- More specific questions on the purchasing and consumption of sheep meat;
- Karoo sheep meat awareness, purchasing, consumption and perceptions.

The data was coded and captured using SPSS 15.0 for Windows. Data analysis involved a combination of descriptive statistics, Pearson Chi-Square test, one-way ANOVA (Analysis of variance) and the development of spider graphs to illustrate consumers' Karoo sheep meat perceptions.

7.2 Results and discussion

Sample demographics

The consumer sample had the following demographic characteristics:

- After data cleaning the final sample consisted of 192 consumers (93 Gauteng consumers and 99 Western Cape consumers).
- Gender: 46.4% male; 53.6% female⁹.
- Average age: 34.1 years.
- Race: 37.5% white; 35.4% black; 27.1% coloured¹⁰.
- Marital status: 55.9% single; 36.7% married; 6.9% divorced.
- Education level: 34.5% Grade 12 or lower; 65.4% some post-matric qualification¹¹.

⁹ Significant differences at the 10% probability level between Gauteng (39.8% male) and Western Cape (52.5% male)

¹⁰ Significant differences at the 1% probability level between Gauteng (60.2% black & 39.8% white) and Western Cape (35.4% white, 12.1% black & 52.5% coloured). These differences were expected given the different demographic profiles of the two provinces.

- Gross monthly income of households: 32.4% less than R10000; 22.7% R10000 to R14999; 19.3% R15000 to R19999; 8.5% R20000 to R24999; 15.3% R25000 or more.
- Average household size: 3.2 people¹².

Sheep meat in the context of other meat types

The share of consumers purchasing and consuming various meat types are shown in Table 4. The sampling criteria specified that consumers participating in the survey had to buy and eat sheep meat. When considering the other meat types, the data in Table 4 indicates the popularity of beef, chicken and fish.

Table 4: The share of the consumer sample purchasing and consuming various meat types¹³

| Meat type: | Share of consumer sample (n=192) the specific meat type: | |
|------------|---|------------|
| | Purchasing: | Consuming: |
| Sheep meat | 100% | 100% |
| Beef | 93.8% | 95.8% |
| Chicken | 95.8% | 95.8% |
| Fish | 91.1% | 93.8% |
| Pork | 73.3% | 79.6% |

The perceived affordability of various meat types are shown in Table 5. The perceived expensive nature of sheep meat is clearly illustrated in Table 5 which is in line with the actual expensive nature of sheep meat.

Table 5: The perceived affordability of various meat types¹⁴

| Meat type: | Share of consumer sample (n=192) indicating that the specific meat type is 'Very affordable' OR 'Somewhat affordable' |
|----------------------------------|---|
| Chicken | 80.9% |
| Fish | 67.4% |
| Pork | 64.4% |
| Beef | 54.1% |
| Sheep meat from other SA regions | 42.8% |
| Imported sheep meat | 25.4% |

Sheep meat

A number of questions investigated various aspects regarding the consumers' sheep meat purchasing and consumption behaviour:

- Overall only 47.0% of the consumers distinguish between mutton and lamb¹⁵, despite the fact that all the consumers indicated that they purchase and consume sheep meat, revealing limited product knowledge even on this very basic level.

The respondents' sheep meat purchase and consumption frequencies are summarised in Table 6. The differences between the purchasing frequencies and the consumption frequencies indicate bulk buying behaviour from consumers. It is also interesting to note

¹¹ Significant differences at the 1% probability level between Gauteng (91.5% with some post-matric qualification) and Western Cape (60.0% with Grade 12 or less).

¹² Significant differences at the 1% probability level between Gauteng (2.74 people) and Western Cape (3.68 people).

¹³ The race groups and provinces revealed similar behaviour in terms of the purchasing and consumption of different meat types.

¹⁴ The racial groups and provinces revealed similar behaviour in terms of their meat affordability perceptions.

¹⁵ Among the white and coloured consumers a significantly higher share of consumers distinguished between mutton and lamb, compared to the black consumers.

that almost half of the sample is regular consumers of sheep meat (consuming it at least once per week or more often).

Table 6: Sheep meat purchase and consumption frequencies¹⁶

| Frequency: | Purchasing: | Consumption: |
|--------------------------|--------------------|---------------------|
| Once per week or more | 23.4% | 48.6% |
| Once or twice per month | 60.5% | 41.8% |
| Less than once per month | 16.1% | 9.5% |

- The most popular purchase location for sheep meat is the supermarket (82.3% of consumers), followed by butchers (37.0% of consumers).
- The meat cuts purchased most frequently are chops (70.8% of consumers), rib (52.3% of consumers), stew/potjie (49.5% of consumers) and leg/shank (39.8% of consumers)¹⁷.

Karoo mutton / lamb

In order to establish consumers' awareness of meat origin in general and Karoo sheep meat specifically, consumers were presented with the following questions: "Which type of mutton / lamb do you prefer? Mutton / lamb from ... (1) Free State, (2) any region in SA, (3) the Karoo, (4) other countries OR (5) 'No specific preference'"; "Have you ever heard of Karoo mutton / lamb?"; and "Do you buy Karoo mutton / lamb if available?". Only 34.9% of the consumer sample indicated that they have a preference for sheep meat with a specific regional origin (i.e. Any SA region or imported or Karoo or Free State). The consumers' specific regional preferences are summarised in Table 7. The most preferred options in terms of sheep meat origin were 'Any region in South Africa' and the Free State, while sheep meat from the Karoo was among the lesser preferred options.

Table 7: Consumers' sheep meat preferences when considering meat origin

| Sheep meat region of origin: | Share of total consumer sample () and consumers with regional preferences [] indicating the specific choice: | |
|-------------------------------------|---|--|
| | First choice: | Combination of first-, second- and third choices: |
| Any region in South Africa | (9.4%) [26.9%] | (28.6%) [82.1%] |
| Imported | (11.5%) [32.8%] | (20.8%) [59.7%] |
| Free State | (7.3%) [20.9%] | (28.1%) [80.6%] |
| Karoo | (6.8%) [19.4%] | (21.4%) [61.2%] |

It is important to note that even though 53.6% of the consumers indicated that they are aware of Karoo sheep meat, only 68.0% of these consumers (i.e. 36.5% of the total consumer sample) purchase Karoo lamb if it is available¹⁸. Furthermore, only 39.8% of these consumers (i.e. 21.4% of the total consumer sample) indicated some preference for Karoo sheep meat. The respondents' Karoo sheep meat purchase and consumption frequencies are summarised in Table 8.

Table 8: Karoo sheep meat purchase and consumption frequencies¹⁹

| Frequency: | Purchasing:* | Consumption:* |
|--------------------------|---------------------|----------------------|
| Once per week or more | (4.7%) [8.7%] | (4.7%) [8.7%] |
| Once or twice per month | (14.6%) [27.2%] | (14.1%) [26.2%] |
| Less than once per month | (16.7%) [31.1%] | (17.2%) [32.0%] |

* (Share of total consumer sample); [Share of consumers who are aware of Karoo sheep meat]

¹⁶ Share of consumers purchasing / consuming sheep meat according to a specific frequency.

¹⁷ Share of consumers purchasing the specific meat cut at least once per month or more often.

¹⁸ Consumers from the Western Cape, as well as white and coloured consumers revealed a significantly greater awareness and knowledge of Karoo sheep meat and willingness to purchase the product.

¹⁹ Share of consumers purchasing / consuming sheep meat according to a specific frequency.

The similarities between the purchasing frequencies and the consumption frequencies indicate a tendency among consumers to only buy a portion of Karoo sheep meat for a specific meal occasion. This is in contrast to the bulk buying behaviour reported earlier in terms of sheep meat in general. These results could be indicative of the ‘niche’ nature of Karoo sheep meat, confirmed by the observation that the Karoo sheep meat purchasing and consumption frequencies are significantly lower than the frequencies for sheep meat in general as reported in Table 5 earlier.

In terms of consumers’ purchasing behaviour with respect to Karoo sheep meat only 55.3% of the consumers who were aware of Karoo sheep meat, knew where to buy the product and only 23.3% of these consumers indicated that the product is widely available. The most popular purchase location for Karoo sheep meat is the supermarket.

The perceived affordability of various meat types were shown in Table 4. As mentioned earlier, the (perceived) expensive nature of sheep meat was clearly illustrated in Table 4. It is important to note that Karoo sheep meat was perceived as the least affordable meat option, since only 21.4% of the total consumer sample indicated that the product was ‘Somewhat affordable’ or ‘Very affordable’.

The nature of the Karoo sheep meat reputation was investigated through numerous questions. The respondents were first asked an open question to list the three main differences (if any) between Karoo mutton / lamb and mutton / lamb from other regions in South Africa. These results are summarised in Table 9.

Table 9: Consumers’ perceptions regarding the differences between Karoo sheep meat and sheep meat from other regions in South Africa, based on an open question

| Difference variable: | Share of consumers who are aware of Karoo sheep meat indicating the specific choice: | |
|----------------------|--|--|
| | Main difference: | Combination of main-, secondary- and tertiary differences: |
| Taste | 19.4% | 22.3% |
| Tenderness | 9.7% | 24.3% |
| Flavour | 2.9% | 8.7% |
| Price | 1.0% | 7.8% |
| Fat | 2.9% | 6.8% |
| Don’t know | 41.7% | Not applicable |

Given the potential product specificity of Karoo lamb related to the unique flavour of the meat, the perceptions related to flavour and taste are of particular importance. The first important observation from Table 9 is that many of the consumers who are aware of Karoo sheep meat (41.7%) did not have any idea regarding the differences between the product and sheep meat from other regions, while 22.3% of these consumers indicated a taste difference and 8.7% a flavour difference. Despite the fact that the tenderness of Karoo sheep meat and other sheep meat should not necessarily differ, 24.3% of the consumers who are aware of Karoo sheep meat perceived a tenderness difference.

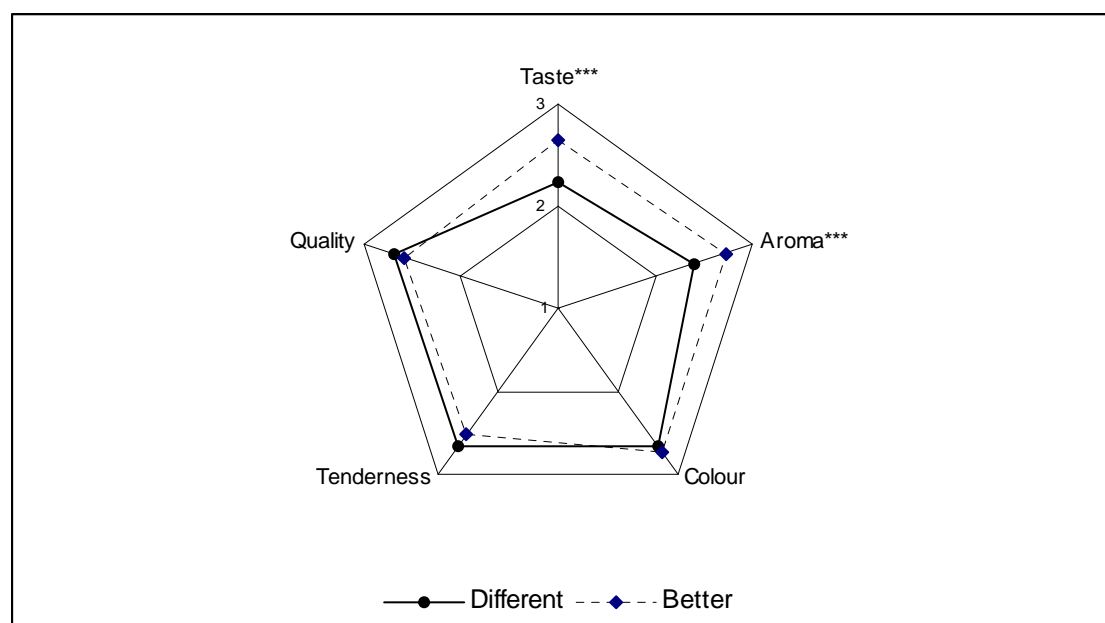
In order to further investigate the reputation of Karoo sheep meat based on consumers’ perceptions, consumers were also asked to indicate their level of agreement with a number of statements covering issues related to the difference and superiority of Karoo sheep meat in terms of quality, aroma, colour, tenderness and taste through a 5 point rating scale. A summary of these results are shown in Table 10 and Figure 5.

Among the sample of consumers who are aware of Karoo sheep meat, 63.1% of the consumers perceived Karoo sheep meat as ‘different’, particularly in terms of taste and aroma dimensions. The consumers’ relatively strong level of agreement with the statements that Karoo sheep meat is different from ‘generic’ sheep meat in terms of taste and aroma

dimensions is also evident from Figure 5. These observations have positive implications for the establishment of a GI for Karoo sheep meat. However, even though 63.1% of the consumers who are aware of Karoo sheep meat perceived Karoo sheep meat as ‘different’ only 47.6% of these consumers perceived it as being ‘better’ than ‘generic’ sheep meat, a trend that is particularly reflected in the specific attributes of sheep meat taste and aroma. The observation that Karoo sheep meat is perceived as ‘different’ and not necessarily as ‘better’ in terms of taste and aroma dimensions is strengthened by the data presented in Figure 5, illustrating a significantly lower level of agreement among the consumers who are aware of Karoo sheep meat, in terms of Karoo sheep meat being ‘different’ and ‘better’ compared to other sheep meat.

Table 10: Consumers’ perceptions of Karoo sheep meat, based on a series of evaluation statements

| Attribute: | Share of consumers who are aware of Karoo sheep meat indicating that Karoo sheep meat is ... from ‘generic’ sheep meat: | |
|------------|---|---------|
| | Different: | Better: |
| General | 63.1% | 47.6% |
| Taste | 63.1% | 42.7% |
| Aroma | 53.4% | 34.0% |
| Colour | 35.9% | 35.0% |
| Tenderness | 47.6% | 47.6% |
| Quality | 42.7% | 42.7% |



*** Significant differences at the 1% probability level: Taste [$F=13.584$, $df=1$, $p=0.000$]; Aroma [$F=12.014$, $df=1$, $p=0.001$]

Figure 5: A spider graph illustrating the perceptions of the consumers who are aware of Karoo sheep meat based on a series of evaluation statements, expressed as mean rating scores²⁰

The consumers also expressed their agreement with the statement “Karoo lamb / mutton is a traditional food type”. Only 44.7% of the consumers who are aware of Karoo sheep meat agreed with this statement. In terms of consumers’ willingness to pay (WTP) more for Karoo sheep meat, only 27.2% of these consumers indicated a willingness to pay more for Karoo sheep meat compared to other sheep meat options.

²⁰ Scale interpretation: 1 – Strongly agree; 2 – Agree; 3 – Neutral/Don’t know

Finally the nature of the Karoo image in consumers' minds were investigated through an open question stating "When you think about the Karoo, please describe the first images and words that come to your mind". A summary of the responses (expressed as share of the total consumer sample) is shown in Table 11. The main Karoo image in the consumers' minds related to the Karoo being a desert, dry, hot and dusty. Thus, the results indicate that the majority of consumers have a rather negative image of the Karoo region. Only a small share of consumers recalled the Karoo bush and some positive images such as positive food images, open spaces and the peacefulness of the Karoo region.

Table 11: The nature of the Karoo image in consumers' minds

| Image: | Share of total sample mentioning the specific image²¹: |
|------------------------------------|--|
| Desert / dry / hot / dusty | 54.2% |
| Karoo bush | 12.3% |
| Positive food images ²² | 7.4% |
| Open spaces | 6.9% |
| Peaceful | 4.4% |
| Flat | 3.4% |
| Sheep / sheep farms | 3.4% |

8. CONCLUSION

Whenever we discussed this case study with people interested in the Karoo, the question "but where is the Karoo" is inevitably asked. Indeed, the task of demarcating the Karoo turned out to be a daunting endeavour. In the final instance the natural occurrence of a selection of six different Karoo bushes was used to identify a specific area that could be classified as the Karoo. For ease of administration this area was overlaid by the Municipal boundaries on the condition that the presence of some of the six Karoo bushes must be detected on any farm before Karoo Lamb are allowed to be produced on the farm.

The case study also spent some time in establishing the specificity and reputation of Karoo Lamb. Regarding product specificity of Karoo sheep meat it was ascertained that:

- There was no sensory detectable difference between the two main sheep breeds, namely Merino and Dorper, within a region. This means that the South African carcass classification system that does not specify breed is scientifically correct in doing so, and that for the purpose of establishing a GI it need not be more strict than current legislation
- There was a no significant sensory detectable difference between mutton produced in the different Karoo regions. This translates into the fact that the Karoo region consistently produces a similar type of sheep meat product, including the western Free State region. This can be explained to some extent by the fact that the grazing plants in years of good rain (as was in this instance) is present in the wider Karoo region for grazing and as South African lam and mutton is mostly extensively produced on natural pasture.
- Mutton from the Karoo region (Carnarvon, De Aar and Kalahari) has definite sensory detectable flavour characteristics present in the meat which can only be due to grazing plants in these areas that are consumed by the sheep. However, this was not significantly different to mutton from adjacent Free State region. Based on the PCA Namibian sheep meat grouped separate from meat from all the other Karoo-like regions. It is recommended that mutton produced in areas further removed than the greater Karoo region to be included in a follow-up study, in particular where no Karoo shrubs area available as part of natural grazing e.g. KwaZulu Natal and Mpumalanga.

²¹ The shares add up to more than 100%, since a consumer could provide more than one image as a response to the question.

²² E.g. good food, biltong, free range lamb, good meat with shrub flavour, braai, chops, lean meat)

- The fatty acid profile of mutton produced mostly on indigenous plants may be more favourable than those produced on natural grass. This should be further investigated.
- The link between indigenous plants and the unique flavour compounds in mutton from the Karoo region should be further investigated using more sophisticated techniques such as an e-nose.

The investigation of the Karoo sheep meat reputation from a consumer perception perspective revealed a number of positive and negative observations. On the positive side it was found that 53.6% of consumers are aware of Karoo sheep meat. Among the consumers who are aware of Karoo sheep meat 63.1% and 53.4% of consumers respectively perceive Karoo sheep meat as having a different taste and aroma compared to 'generic' sheep meat, while about two thirds of these consumers perceive the taste and aroma of Karoo sheep meat as being superior to 'generic' sheep meat. This is a good indication of an adequate reputation among consumers in terms of the taste / flavour attributes of Karoo lamb. Among the consumers who are aware of Karoo sheep meat 44.7% perceive Karoo sheep meat as a traditional food type and 68.0% are willing to purchase Karoo sheep meat if it is available. However, there are also a number of observations shedding a negative light on the potential of establishing a Karoo sheep meat reputation among consumers:

- There is a general lack of 'romantic' Karoo images in consumers' minds. The marketing of the Karoo region as a multi-faceted tourism destination could potentially make a valuable contribution towards improving the image of the Karoo in consumers' minds.
- When purchasing sheep meat, 65.1% of consumers do not consider the regional origin of the meat. This observation is in line with the fact that the majority of sheep meat sold on the South African market is not marketed and advertised on a commodity basis (distinguished through the red meat grading system) and not based on the regional origin of the meat.
- Among the consumers who are aware of Karoo sheep meat, only 35% of consumers purchase and consume Karoo sheep meat two times per month or more, contributing to the conclusion that Karoo sheep meat could be viewed as a niche product in the South African sheep meat market.
- Only 27.2% of the consumers who are aware of Karoo sheep meat are willing to pay a premium for Karoo sheep meat. This could be problematic when considering the potential cost implications of establishing a GI for Karoo sheep meat. It is recommended that consumers' willingness to pay for Karoo sheep meat should be further investigated and quantified through more advanced analytical techniques such as experimental auctions.

The consumer survey indicated that there is relatively strong evidence of the reputation of Karoo sheep meat among consumers, especially among consumers that are aware of Karoo sheep meat. There is, however, definitely scope to increase the awareness of 'romantic' Karoo region and Karoo sheep meat and its' unique qualities among sheep meat consumers.

It is clear from this case study that there is a detectable notion of a Karoo image amongst consumers, that it is used amongst certain circles for financial benefits, often to the exclusion of the inhabitants of the Karoo. It follows that there is a scope for the valorisation and protection of the Karoo Image and specifically the Karoo Lamb Indicator, albeit in a specific consumer niche. However, this process can only take place if there is a duly recognised entity that can, on behalf of all inhabitants, take ownership of Karoo name.

The lack of collective organisation amongst farmers and communities in the Karoo and the fact there is not one organisation that could take ownership of the Karoo Lamb name made it necessary to also pursue a separate activity to establish an organisation that could act on behalf of the Karoo region and its inhabitants.

It is for this reason that a number of interested individuals (including members from the project team) have initiated a process a representative organisation called the “Karoo Heritage foundation” which will operate as non-profit organisation or ‘trust’. The intention is that this organisation will act as patron for the heritage of the Karoo region which includes amongst other things Karoo Lamb.

In the draft trust deed of this organisation it is envisaged that it will trace, record, preserve and commemorate the rich heritage which evolved in the Karoo region of South Africa, and to keep in custody such heritage for the descendants of the inhabitants of the Karoo and the South African public in general. Two of the aims of this proposed organisation are: (1) to acquire, register and protect generic names and geographical products, developments, fauna, flora and property on behalf of the beneficiary community; (2) to acquire or renovate buildings of historical and/or architectural importance for preservation of the heritage of the lives, culture and history of the people of the Karoo, or to promote the renovation of such buildings.

The formation of the Karoo Heritage Foundation is thus one of the activities that will now continue after this DURAS project comes to an end. It is envisaged that this organisation will take the responsibility of registering Karoo Lamb as a GI or as a certification mark.

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6. CONCLUSION

The core of the project has been the articulation between the understanding and support of local dynamics at industry level captured through the case studies and the involvement into the on going political process. As was mentioned, the research program was well connected to the policy process with, in particular, the involvement of government representatives as core partners that allowed for stimulating the public debate on GIs. This has been instrumental in the evolution of the policy arena from a clear lack of interest or even negative view on GI to a much more open attitude. For example, the drafters of the New IP bill participated in our seminars, and our research cases will be the first to test the functioning of the new legislation. We were also able to comment on the draft legislation from our research results. In this regard, case studies such as the Rooibos case have been enriching the research process and thus the political debate (refer to Section 4 and 5 above), bringing a better understanding on questions such as the legal requirements for GI strong international recognition (i.e. from the EU), the skills requirements both at public level to assess GI application, monitor their use and enforce unlawful use and at private level would certification bodies or other actors be mandated to control GI specification implementation as well as the level of public and private engagement and collective action required to pursue a meaningful GI route.

When we reflect on the process and results of the project, it is clear that the project was supported and enriched by regular engagement with the industries, a sense of trust between the research team and the industries, the different seminars that were held, in particular the mid term project expert round table as well as through the different steering committees. This allowed for developing proper participatory research process through regular reassessment, and approaching and conducting the various case studies in different ways while getting insights from the set of local experiences. Building upon the variety of situations displayed by the cases, the project allowed characterizing different levels of industry trajectories with regard to quality based and IP collective strategies. The research questions and approach were clearly enriched through researchers' involvement in actual GI initiatives with different industries. And the project initial statement regarding the diversity of traditional knowledge and indigenous resources and of agro-food products based on local resources and the potential for adding value to these products has been clearly reinforced and documented.

Furthermore, accompanying local experiences and engaging with different stakeholders at the different levels contributed to the improved awareness and understanding of the potential of GIs for improving market access for resource poor farmers both at the industries and local organizations' level, and at government level in Namibia and South Africa. It also facilitated the building of a partnership between local organizations, research and government institutions as well as NGOs.

It is clear now that the activities of our research team will be sustained after the end of the project. In various cases, GI related collective action dynamics at industry level had spill over effects on related topics such as biodiversity, general quality management, marketing, clearly illustrating GIs potential for local communities above the provision of an IP protection and a quality signal.

Exploring the potential of GIs in Southern Africa and engaging concretely with stakeholders at the different levels shed light on the one hand, to a number of IP related issues that will need further development such as animal breeder rights, efficient mechanisms for benefit sharing, etc. and on the other hand, to the potential for enhancing collective action at industry level through developing collective quality management strategies for many industries in Southern Africa. There is a clear need for further participatory research processes on how to empower local agro-food industries and farmers' organisation with regard to IP strategies and quality signalling.